# VACCINE EQUITY, TRANSPARENCY, AND ACCOUNTABILITY IN ASIA:

## Realities and Dilemmas

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VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

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Realities and Dilemmas

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REGIONAL SYNTHESIS REPORT

# VACCINE EQUITY, TRANSPARENCY, AND ACCOUNTABILITY IN ASIA: Realities and Dilemmas

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## PART I: INTRODUCTION

While the COVID-19 pandemic has affected everybody, it has also laid bare — and introduced — country-specific socioeconomic and political challenges. Beyond showing existing inequalities, social stratification has been further magnified through differences in access to pandemic-related protection, services, and information. The pandemic created a crisis in which public health infrastructure struggled to cope with the high demand for healthcare services, leading to a gap in vaccine equity. The severity of this crisis is even more alarming in the most vulnerable and least-developed countries.

On a global scale, there was a stark difference in access to COVID-19 vaccines between the Global North and Global South. With most vaccines initially developed and produced by only a handful of countries, the rest of the world had to rely on existing diplomatic ties, purchasing power, and donations to access these vaccines. Meanwhile, observable inequities between populations at the subnational level, exacerbated by socioeconomic, geographic, and citizenship status, resulted in further uneven access to COVID-19 vaccines. Different countries have implemented different strategies for the distribution of COVID-19 vaccines. Some have kept vulnerable and marginalised populations in mind, whereas others have implemented generalised vaccine distribution and inoculation strategies without considering vulnerable and marginalised populations. This has caused some countries to be far ahead of others in terms of vaccination rate and equity.

Given these challenges, the Innovation for Change - East Asia Hub (I4C-EA) took the initiative to conduct two online learning spaces with field experts and civil society representatives from South Asia, East Asia, the Pacific, Africa, and Europe to discuss global and regional trends related to COVID-19 vaccine inequity, diplomacy, transparency, and accountability. These sessions in July 2022 highlighted the nuances of the COVID-19 vaccine equity situation across countries, and identified common issues and trends, such as uneven and inequitable access to COVID-19 vaccines, and concerns about the affordability and manufacturing rights of vaccines developed using public funding and philanthropic support. Subsequently, a three-day co-creation workshop was conducted with engaged civil society representatives from South Asia, East Asia, and the Pacific in August 2022. These developments have shaped the current framework and scope of this study presented in this report.

This report contains reports from 11 countries across three subregions of Asia: Southeast Asia, South Asia, and Central Asia (see Table 1). It captures the lived experiences and data-backed realities of COVID-19 vaccine equity. It looks at trends and similarities across focus countries, while capturing each country's unique experiences and situations. It also takes a special look at how COVID-19 vaccines made by China-based manufacturers have figured in the issues of vaccine access and equity, China's influence in these 11 countries, and how its vaccine diplomacy works in each.

**Table 1: 11 countries in three subregions**

| Subregions | Countries |
|---|---|
| Southeast Asia | Cambodia<br>Indonesia<br>Philippines<br>Thailand<br>Timor-Leste |
| South Asia | Afghanistan<br>Bangladesh<br>India<br>Nepal |
| Central Asia | Kazakhstan<br>Mongolia |

Using primary data — interviews and focus group discussions (FGD) — and secondary data, the 11-country research investigates vaccine information accessibility, equity, transparency, and accountability of vaccine procurement during the COVID-19 pandemic. This study has the following five objectives:

1. To contribute to the global campaign for vaccine equity

2. To examine the distribution and procurement of Chinese-made vaccines in 11 countries across three Innovation for Change regions (East Asia, focusing on Southeast Asia; South Asia; and Central Asia)

3. To explore the extent to which countries in the three subregions relied on Chinese-made vaccines at the start of the global vaccination campaign

4. To research the transparency of Global South governments' procurement processes

5. To assess the impact of reliance on Chinese-made vaccines

## Experience with COVID-19

There were human rights issues that went unaddressed during the pandemic. In Mongolia, the National Human Rights Commission of Mongolia (NHRCM) and civil society reported that human rights violations led to the resignation of some government officials. However, some, such as the World Health Organization (WHO), regarded Mongolia's early containment strategy as successful. Some common issues and trends emerged among the 11 countries in their experiences with COVID-19.



1. In all 11 countries, governments have responded to the pandemic with some form of stringent lockdown at various levels and in different waves, especially as subsequent variants hit. Countries, including Mongolia, Thailand, Kazakhstan, and Timor-Leste, have declared emergencies. The use of an Emergency Decree in Thailand gives a wide range of powers to the state with limited liability, which creates a decisive centralised decision-making apparatus that makes it difficult to hold the government accountable.

2. Notwithstanding differences in economic status, all countries face constraints on their local capacities to recover from the pandemic.

3. The pandemic has severely affected already marginalised groups that lack access to resources in most countries, including India, Thailand, Timor-Leste, and Afghanistan. For example, the disabled population in Afghanistan was initially excluded from groups prioritised for vaccination.

## Vaccination measures

There were similarities in the vaccination measures of the 11 countries as follows:

The governments of all 11 countries have some form of vaccination strategy or plan for government ministries or agencies to spearhead across different portfolios. In most cases, it is centralised.
The vaccination plans of all countries have specified priority groups, but they are not uniform in which groups they prioritised or how they ranked these groups.

**As the world adjusts to the COVID-19 pandemic, most COVID-19 dashboards have stopped updating. This created challenges for the researchers to obtain updated data on the fully vaccinated rate for the eligible population. Not all data found by the researchers are disaggregated and updated. Hence, some countries have unconfirmed data, while others have to rely on the limited information provided by alternative sources.** For instance, Kazakhstan has no particular figure for its vaccinated eligible population. Moreover, while full vaccination generally refers to two doses, in the Philippines, it also covers those who got the single-dose vaccines like Janssen (J&J) and Sputnik Light.

According to WHO data, as of February 2023, 15 million vaccine doses had been administered in Afghanistan, with 13.4 million people having received at least one dose (34.5%) and 12.7 million considered fully vaccinated (32.6%). In Bangladesh, over 115 million people received two vaccine doses in 2022. In Nepal, as of January 2023, 22,327,169 people, or 76.5% of the total population, had been fully vaccinated. In Mongolia, the fully vaccinated percentage was 85.7% as of 6 January 2023, with an eligible population of 2.5 million. In Thailand, as of 10 February 2023, vaccination coverage stood at approximately 78% population coverage of two-dose programs, and slightly more than 50% booster coverage (third dose or more). As of 13 February 2023, Timor-Leste has made good progress with 2,011,703 doses delivered to around 798,020 people, meaning it has achieved around 60.53% two-dose vaccination.

Some countries have adopted different approaches to vaccination. For instance, in the Philippines, four features characterise the vaccination program: (1) vaccine procurement through a pragmatic, diversified portfolio approach, as recommended by business community representatives, in order to minimise the risk of vaccine supply failure;  (2) rollout based on priority groups selected by the national government; (3) vaccines being mainly administered by local governments; and (4) communication support from the government and the private sector. In some countries, such as Indonesia, Cambodia, and Timor-Leste, leaders were influential in overcoming vaccine hesitancy at the beginning of the vaccination program by receiving the first jab in public.

## A focus on Chinese-made vaccines

Except India, all 10 research focus countries have received Chinese-made vaccines. India's inclusion in this research, however, has added to the nuances of exploring the factors leading to Chinese vaccine diplomacy in these countries. As indicated in the India report, India launched its Vaccine Maitri Campaign and "Neighbourhood First Policy" to contribute towards Global South vaccine equity. Along with this, India, in alliance with the United States (US), Australia, and Japan under the Quadrilateral Security Dialogue ("Quad"), has attempted to fill the vaccine gap with the hope of changing geopolitical tides in its favour. However, India has been unable to deliver on its aspirations or promises. By contrast, China has met this vaccine access gap in South, Central, and Southeast Asia. This dilemma of vaccine equity reveals how geopolitical contestation has impacted international vaccine equity: vaccination has become a strategic commodity rather than a global public good, as countries that can afford to produce vaccines use vaccine diplomacy to pursue their national interests and geopolitical gains.

Countries such as Bangladesh, Timor-Leste, Kazakhstan, Nepal, and Afghanistan have relied on external assistance, donor countries, international organisations such as the United Nations Children's Fund (UNICEF), and the WHO, and initiatives such as COVID-19 Vaccines Global Access (COVAX) to ensure sufficient vaccine supply.  Timor-Leste has relied on AstraZeneca and Sinovac vaccines — the former supported by major donor countries such as Australia, the U.S., and New Zealand, and the latter supported by China.

China has emerged as the largest vaccine supplier to most countries covered by this research, including Indonesia, Bangladesh, Timor-Leste, Cambodia, and Afghanistan. Bangladesh has relied heavily on Chinese-made vaccines, with Sinopharm and Sinovac comprising approximately 87.7% of all the vaccines it received until June 2022. As a non-vaccine manufacturing country, Cambodia has received Sinopharm and Sinovac from China in two formats: donation to and purchase by the Cambodian government. There are 13 types of vaccines in Indonesia, five made by or in cooperation with Chinese companies. Owing in part to India's inability to provide vaccines to Bangladesh and Afghanistan as promised, China has become the largest vaccine supplier in South Asia. Limited by the "two-neighbour" problem, Kazakhstan, being geographically and economically close to Russia and China, has been dominated by Russian and Chinese vaccines. This has prevented Kazakhstan from diversifying its inventory of vaccines to include those from Western countries. For low-income countries, such as Afghanistan, acquiring enough vaccines to vaccinate their populations has been challenging; Afghanistan has relied on COVAX and other countries, including the US and China. However, after the US and North Atlantic Treaty Organization (NATO) forces withdrew from Afghanistan in August 2021, leading to the return of the Taliban, China grabbed the opportunity to fill the vaccine gap. It is also noteworthy that although China has made major donations to most countries under this research, there have been some adverse reactions to this from communities in these countries such as in Cambodia, Timor-Leste, and Kazakhstan.

The findings of this research are divided into three main sections: information accessibility; vaccine equity; and self-reliance, transparency, and accountability. The similarities and differences among the 11 countries are discussed in each section, before a conclusion and list of recommendations.

# PART II: RESEARCH FINDINGS

## Section 1: On information accessibility

### Limited information on vaccine procurement and donations

No country has comprehensively reported good practices for obtaining information about procured or received COVID-19 vaccines. In Kazakhstan, there is no information on available vaccines and no other information on procurement volume, price, or sources of supply. In Timor-Leste, it remains a challenge to access updated information about the number of people who have received vaccines and the type of vaccine used. In Bangladesh, neither the Surokkha app nor the national dashboard includes vaccine price, batch number, expiration date, or waste information; this information is confidential and only accessible by filing a right to information (RTI) application under the Right to Information Act of 2009, which can take months or years to process. In Thailand, the government has never publicly disclosed vaccine delivery records, distribution data, existing vaccine stock, vaccine expiration or wastage information, or expenses incurred during vaccine procurement. Local media outlets have submitted requests but received no responses.

In Indonesia, despite there being policies targeted at the vaccine procurement process, such as the Presidential Regulation (Perpres) on COVID-19 Vaccine Procurement and the Vaccination Programs and the Health Ministerial Regulation (Permenkes), these policies, while being implemented, do not oblige responsible government agencies to disclose public information. For instance, the responsibility of government institutions to disclose information on vaccines is not specified.

In Mongolia, detailed information, including about vaccine procurement, distribution, availability, expiration, and wastage, was not available in government portals. Only limited information on vaccine procurement, distribution, and availability was included in the statements of government officials, and only statistics on vaccination progress and vaccination centres are publicly available. In Nepal, for months, there was little information on the vaccines being provided and no breakdown of how many people had received each vaccine, along with details about the vaccines, doses of each administered, manufacturers, and expiry dates. This information was eventually incorporated into daily updates; however, until then, the public had to rely primarily on news reports. In Cambodia, there is no detailed breakdown of procurement, donations, and related incurred costs, such as storage and maintenance. Moreover, sources of the total figures of vaccines received, doses remaining, wastage, expiry dates of vaccines, and medical waste management are not publicly available in one portal or location.



### Dissemination of vaccine information

**All 11 governments have used digital and information technologies during their pandemic responses. They each have at least one leading website portal and application tool for some information related to the COVID-19 vaccine. The difference lies in how these portals and tools cover information that is accessible to the public. Some have proven to be effective, whereas others have proven to be detached from actual grassroots needs.** In India, for instance, technology is considered a key enabler of citizens' access to information: information on vaccination is disseminated using both an app and national application tools (namely, Co-WIN and state-developed apps such as the GOK Direct-Kerala), strengthening information accessibility at the state level. Some countries are heavily dependent on social media, such as Cambodia, where there are almost 12 million Facebook users out of a population of 16 million. The Facebook pages of the Cambodian Prime Minister and the Ministry of Health were the official sources of pandemic-related information.

Some countries have gradually improved their systems to share data and information more comprehensively. For instance, in Bangladesh, information was initially limited to a few topics, such as a vaccination centre's name, the total number of dosage recipients, and the proportion of male and female vaccine recipients. However, more information was made available later, including the distribution of different vaccines (e.g., AstraZeneca-Covishield, Sinopharm, and Pfizer) and the centres where they were provided. Some countries, such as Bangladesh, also include the local language (e.g., Bengali), apart from English, in their public web portal. Likewise, in Kazakhstan, all central information about COVID-19 has been organised on a web portal and made available in Kazakh and Russian languages.

Other actors also have played essential roles in information accessibility. For instance, in Cambodia, especially in rural areas, village leaders went door-to-door to inform household members about the date, time, and documents required to be brought along when going for vaccination. The government and the private sector conducted massive parallel information programs in the Philippines, and these strategies helped redefine public attitudes about the pandemic and the value of vaccination. In Kazakhstan, in light of the government's lack of information campaigns, civil society groups and various entities filled gaps. For instance, doctors made the Instagram page MedSupportKz, which provides information about all of the COVID-19 vaccines, what types of vaccines are available, and how each vaccine works; it also posts replies to questions about mass vaccination measures by the government, revaccination necessities, and consequences of vaccination. Information is provided in both Russian and Kazakh languages.

### Barriers to vaccine information accessibility

**There have been similar barriers to information accessibility across all 11 countries, as identified in this research. For instance, information being disseminated does not include scientific information to assure public confidence of vaccines' safety, which has repeatedly led to misinformation and**

**disinformation. It also lacks disclosure on how COVID-19 vaccines are being made accessible to marginalised communities, migrants, refugees, and stateless persons. Limited access to the Internet, social media, and conventional media is another barrier.** In Timor-Leste, Internet penetration is less than 50%. At the same time, not all Timorese in rural areas have access to national media such as television.

Some barriers are more context specific. For example, although authorities have provided briefings in Bangladesh, the same information is not publicly available on government websites. Sometimes, journalists had to confidentially gather information from unnamed sources. In countries where media freedom is restricted, such as Cambodia, government agencies have designated officials to handle the press, whom reporters can call for interviews. However, efforts to seek further clarification and explanation of government agencies' public announcements are not informative as reporters are usually fed with the same publicly available information; restrictions were imposed because local authorities wanted to control the news narrative and avoid chaos among the public.

The complexity of website portals and vaccination apps is unfriendly for many. For instance, FGD participants in Dhaka and Chottogram, Bangladesh, said that most ethnic minorities and Rohingya refugees, who lacked Internet access and had not yet learned about online registration either could not register or had to get help from others to register at business-driven Internet facilities. The transgender community there was excluded from a registration process that required official IDs that these community members did not have.

There is no specific platform for COVID-19-related information in Afghanistan. Only designated Ministry of Public Health staff have access to vaccine information. Nevertheless, it should be noted that information was more accessible before the Taliban took power. After the Taliban takeover on 15 August 2021, it rarely shared any information on vaccination with either media or the public. It is also imperative to note that the general public's understanding of COVID-19 and readiness to take measures have been hampered by pervasive, widespread poverty and illiteracy. Many Afghans have simply been absorbed with other daily hardships.



## Section 2: On ensuring equity

**Barriers to vaccine information accessibility overlap with and can impact vaccine equity. For example, technological inequality was observed in all 11 countries. Low digital literacy and limited Internet penetration were common hurdles to realising equitability. This has contributed to limited vaccine information and led to a vaccine equity gap as adequate information was not received.** In Thailand, the various digital channels for making jab appointments, ranging from the official "*Mor Prom*" website and application to social security websites, hospital websites, telecom company websites and applications, various municipal government websites, private company Intranet, and other channels, have caused much confusion and anxiety among the public regarding which channel should be used to secure jab appointments. In Nepal, differing digital access has further widened the rural-urban divide.

### Equity issues within priority groups

**All 11 countries had priority sequences that used a phased approach in their vaccination strategies. In all of them, supply constraints informed the vaccination policy.** In Mongolia, information about such prioritisation was unclear from the start; the ministerial order of vaccination listed target groups without a precise priority sequence. The vaccination drives in most countries prioritised high-risk groups, including healthcare and frontline workers. The other priority groups include those exposed to illnesses, such as in Bangladesh. In Kazakhstan, the main priority groups are medical workers in infectious disease hospitals, emergency medical care, intensive care units (ICU), primary health care (PHC), emergency rooms of hospitals, and epidemiological services, as well as sanitary employees. In Thailand, older adults and immunocompromised individuals have had the highest priority. Notably, "teachers and other essential workers" and "disadvantaged sociodemographic subpopulations at higher risk of severe COVID-19" are among the groups considered high-priority in Thailand, though neither group is included in the WHO standards. Cambodia initially set out four priority phases, with the first phase targeting healthcare workers, frontline armed forces, police, and government officials. However, it changed its approach because of community cluster outbreaks, refocusing on high population density areas before moving down to less populated and remote areas.

In Afghanistan, the priority sequence is as follows: health workers, teachers in schools and universities, security personnel, prisoners and residents of women's shelters, people with comorbidities, people over 50, the nomadic population (30-50 years old), IDP camp residents (30-50 years old), returnees from neighbouring Iran and Pakistan (over 30), government and private employees working with crowds of people (over 18), and people living in the slums of big cities (over 18). This is interesting, as it includes marginalised groups. Even though Afghanistan has one of the largest populations per capita of persons with disabilities (PWDs) in the world, PWDs were not initially included in the priority list and only to be addressed with the arrival of the additional vaccines. The vaccination plan in the Philippines classified the "priority eligible population" into

12 categories, with five groupings under A, six under B, and the rest of the population under C. While senior citizens were included in Group A, the number of deaths in this group suggests that its members remained vulnerable; as of 14 February 2023, 61% of all COVID-19 deaths (over 40,000) claimed the lives of senior citizens. While most countries have a list of priority groups, the Philippines' report also raised another interesting concern: How do countries balance public health priorities and economic concerns? As indicated in the report, one of the objectives of the vaccination program was to stimulate economic recovery, so factors such as contribution to the gross domestic product (GDP) were also used to determine the allocation of vaccines. However applying this economic basis for prioritisation arguably sacrificed vaccine equity. For instance, the indigent population in a province with many industrial parks was treated differently from the indigent population in a province more dependent on agriculture.

In Nepal, development workers, diplomats, and journalists were ahead of the elderly, those with comorbidities, and frontline workers. Such decisions were heavily criticised; many believed such a move was for political gain. Nepal also had a significant rural-urban divide in access. Although just 20% of Nepal's population is urban, these people have had faster and easier access to vaccines.

Differing safety approaches meant that children were vaccinated in some countries and not others. In some countries, children under 12 years were also included in the vaccination groups. In India, the priority sequence is only until the age of 12. Bangladesh started its COVID-19 vaccination campaign for children ages 5–11 in August 2022. In Indonesia, vaccination targets include children ages 6–11.

## Barriers to vaccine equity

Some countries, such as Indonesia and the Philippines, have opted for a decentralised approach, resulting in greater vaccine equity. In Indonesia, provincial, regency, and municipal governments — and sometimes even district and village administrations presided over vaccine distribution. In the Philippines, vaccines have been administered mainly through local governments at the provincial, city, municipality, and *barangay* (village) levels. Apart from local governments, private sector companies (including the private healthcare sector) have also been involved in some countries, such as Indonesia, India, and the Philippines. Indonesia's *gotong-royong* (or private-sector collaboration), proposed by the Indonesian Chamber of Commerce and Industry (KADIN), helps the government achieve herd immunity targets through a vaccination program. Such practices can allow for greater coverage, but they can also put vaccines out of reach as a result of rent-seeking by private actors. In India, for example, vaccination is chargeable in private hospitals, posing an economic barrier for poorer people. The issue of rent seeking motives has also been raised in Indonesia. The decentralised approach also raises questions about who should be responsible for ensuring the equitable distribution of vaccines. In India, the decentralised approach was reversed, state government quotas for vaccine procurement removed, the private sector's quota reduced to 25%, and the Indian government's quota increased to 75%, after a Supreme Court ruling emphasising the need for vaccine price neutrality and equitable distribution.



Vaccine hesitancy has been another issue in all 11 countries. Hesitancy in India is rooted in concerns about the safety and efficacy of indigenous vaccines. In the Philippines, public trust in COVID-19 vaccines was undermined by an earlier controversy over an unrelated drug, Dengvaxia. Distrust in the effectiveness of Chinese vaccines was significant in Mongolia, Cambodia, Timor-Leste, and Nepal. In Bangladesh, distrust of Chinese vaccines is also among the reasons for this, including based on misinformation. In Mongolia, due to a lack of substantial knowledge and information on various types of COVID-19 vaccines, people were hesitant to be vaccinated during the early stages of the vaccination program.

In Thailand, geographical distribution of vaccine coverage showed a clear pattern of inequality. As of December 2022, 54 of 77 provinces recorded more than 70% two-dose coverage, including 112% coverage in Bangkok (suggesting that a considerable number of non-residents travelled to Bangkok to get jabs). Another 19 provinces reported a 60-69% two-dose average, and the remaining four provinces reported less than 59% coverage. The four are among the poorest provinces in Thailand, and this relatively low vaccination coverage has the potential to exacerbate severe economic and social inequalities. The report identified five dimensions of vaccine equity: geographical, technological, and related to target groups and legal status. Poverty has also been identified as a factor affecting vaccine equity. The Thailand report indicates that the poorest populations in Thailand have tended to have less access to "alternative vaccines" (Sinopharm and Moderna, whose importation and administration was facilitated by the private sector) than residents of richer provinces. The "alternative vaccine" scheme has likely exacerbated, rather than alleviated, vaccine inequality in Thailand due to the imbalance of priorities between wealthier and poorer provinces.

Kazakhstan's combination of historical ties to Russia and economic dependence on China, while landlocked and sandwiched between the two, affected its diplomacy and the direction of its vaccine rollout. The majority of its vaccines were produced in Russia and China, and Sinopharm (from China) is the only vaccine approved by the WHO that is available to Kazakhstan citizens. Although Kazakhstan has produced its own vaccine, QazVac, the drug has faced opposition from some independent scientists and doctors, who cite safety issues. Owing to the unavailability of other vaccines, such as those approved by the WHO, Kazakhstan citizens have used "vaccine tours", most commonly to the United Arab Emirates (UAE), Turkey, Croatia, and Bulgaria. The lack of vaccine choices has also pushed many citizens to receive vaccines from neighbouring Central Asian countries, such as Uzbekistan. These practices translated into inequality, as many lower-income people could not afford to do the same.

While most countries have faced shortages of vaccines, this has not been the case in the Philippines, where a portfolio approach involving multiple vaccine manufacturers has preempted a lack of vaccines. However, this approach ultimately caused an oversupply of doses, resulting in wastage. The total number of unused doses was estimated to exceed 50 million, and the Philippine Senate is investigating why at least 44 million doses have expired before they could be used. The vaccine distribution in some countries has also reportedly been warped by political influence. Many political parties involved in government coalitions have competed to manage vaccine

distribution in Thailand, leading to different channels of vaccine appointment registration that led to confusion and disrupted the priorities outlined in the country's vaccination strategy.

## Vaccine equity for marginalised groups

**Across all 11 countries, there has been significant inequity in vaccine distribution across gender lines and regarding marginalised groups — especially refugees and migrant workers. This has led to debates regarding discrimination.** Research for this report suggests that three factors have led to gender inequity in vaccination in India: a patriarchal structure that discriminates against women's right to access healthcare services, limited digital access for women, and misinformation about how vaccines can affect menstrual and women's sexual health. In neighbouring Bangladesh, a glaring disparity could be seen as sanitation workers, garbage collectors, cleaners, and other informal workers exposed to the virus were left behind in vaccination. This has also been the case for vulnerable groups such as indigenous people, people who live in slums, and the transgender community in Bangladesh. Despite the Thai government's announcement that it would implement a "non-discrimination" policy, many foreigners in Thailand, especially migrant workers, continue to face much more difficulty accessing vaccines than Thai nationals. In Cambodia, indigenous people, ethnic minorities, people with disabilities, LGBT+, entertainment workers, domestic workers, and people living with HIV/AIDS are not prioritised, leaving them even more vulnerable.

It is noteworthy that Bangladesh was one of the first countries in the world to vaccinate refugee children and adolescents. The government also signed a revised version of the National Deployment and Vaccination Plan (NDVP) that included the Rohingya population as a target group. As Bangladesh is one of the largest refugee-hosting countries in the world, research for this report focused on vaccine equity involving FGDs in Dhaka and Chottogram, where most ethnic minorities and Rohingya refugees are located. The findings indicate that the government has also attempted to vaccinate Rohingya refugees living in camps in Bangladesh and people in hard-to-reach places. The first and second doses of the vaccine were also given to vulnerable people, also known as the "floating population", and the government and foreign aid organisations allocated COVAX vaccines to immunise the Rohingya community living in Cox's Bazar.

Some efforts have been made in marginalised communities to address this issue. Community leaders and priests were crucial in vaccinating their communities in some marginalised communities, such as the Chepang and Muslims in Nepal. In Cambodia, as marginalised and vulnerable groups are stigmatised and have not been prioritised, civil society has played a vital role in advocating for vaccines to be available to them; trade unions have also played crucial roles in mobilising support for them. Migrant workers returning from Thailand were supported at borders by the International Organization for Migration (IOM), the WHO, UNICEF, and the government, but this response was situational rather than strategic, as it did not meet the real needs of specific groups.



## Chinese vaccines and equity

**Chinese vaccines have become the primary avenue for some countries in their strategies to increase vaccine equity.** In Timor-Leste, the government formally asked the Chinese government to increase the supply of vaccines to support existing vaccine stocks. In Nepal, civil society likewise asked the Chinese government to do so. At the same time, resistance to Chinese vaccines has also been high. In some cases, this was because countries — such as Cambodia and the Philippines — were using them before they got the WHO's approval. When the vaccination campaign began in Cambodia, the government faced multiple challenges, including information about the adverse effects of Chinese vaccines and refusal to voluntarily obtain jabs, with people waiting for the arrival of WHO-approved vaccines. When non-Chinese vaccines arrived, the government faced other challenges, as these were not available at every site where vaccines were administered, and the public was eager to obtain them. Many countries have had debates about whether to use Chinese or non-Chinese vaccines, with implications for how much of their population gets vaccinated. To overcome the negative public sentiment, high-level officials have attempted to boost confidence by being publicly inoculated with Chinese vaccines.

These same issues arose in Mongolia, which has relied heavily on Sinopharm. For example, a small group gathered before the national Ministry of Health office, protesting that Sinopharm was in a phase III clinical trial and not approved by the WHO and voicing suspicion and nationalist sentiments possibly based on misinformation, that "Chinese vaccines received through humanitarian aid, will be used to vaccinate military personnel". In Nepal, the communities examined in the report expressed doubts about Chinese vaccines and preferred other vaccines, primarily due to the prevailing sentiment among Nepalis that Chinese-made products are inferior in quality and are not as trustworthy as those manufactured elsewhere.

## Strategies to increase vaccine coverage

Different countries have used different approaches to increase vaccine coverage. The Government of Bangladesh has worked with other actors, including civil society groups, to address vaccine equity. In Thailand, civil society has played a crucial role in helping vulnerable groups access healthcare and vaccine registration, despite receiving no incentives or special assistance from the government. The Timor-Leste government has applied an entertainment-education approach in its vaccination campaign, with public figures such as national artists joining in efforts to encourage more people to get vaccinated. In Indonesia, some regional governments have provided gifts to encourage people to receive vaccines, including grocery packs, social assistance, and door prizes. In Mongolia, the government gave approximately USD18 for people to receive the first dose of the vaccine; however, this was also in the run-up to a presidential election campaign in June 2021, (likely) illustrating how governments have used the COVID-19 pandemic to their political advantage.

# Section 3: On ensuring self-reliance, transparency, and accountability

## Home-grown vaccines and self-reliance issue

Five of the 11 countries achieved greater self-reliance by producing vaccines (see Table 2). At the beginning of the COVID-19 pandemic, the Indian government recognised the importance of self-reliance, given its vast population and the potential difficulty of procuring vaccines from abroad for this population. The Indian government launched its "Atma Nirbhar Bharat Abhiyan", (Self-Reliant India Campaign) allocating economic stimulus and comprehensive packages worth USD265 billion (Rs. 20 lakh crores) to support India's fight against COVID-19. India also launched the Mission Covid Suraksha, (Covid Protection), to provide monetary support for indigenous vaccine development. Of the 12 vaccines approved in India, six are indigenously produced. One of them, Covishield, was developed by the Serum Institute of India (SII) with the foreign assistance of Oxford-AstraZeneca, Codagenix, and Novovax. Another, Covaxin, was developed by Bharat Biotech International Limited, in collaboration with the National Institute of Virology of the Indian Council of Medical Research (ICMR). However, there are lingering safety concerns regarding Covaxin. Subsequently, four indigenously produced vaccines have been released: ZyCoV-D, Covovax, Gemcovac-19, and iNCOVACC.

**Table 2: Home-grown vaccines**

| Country | Vaccine names |
|---|---|
| Afghanistan | - |
| Bangladesh | Bangavax[1] |
| Cambodia | - |
| India | Covishield[2]<br>Covaxin and Covovax[3]<br>ZyCoV-D, Gemcovac-19, and iNCOVACC[4] |
| Indonesia | IndoVac, AWcorna, and Inavac[5] |
| Kazakhstan | QazVac[6] |
| Mongolia | - |
| Nepal | - |
| Philippines | - |
| Thailand | HXP-GPOVac, Baiya SARS-CoV Vax 1, and ChulaCOV19[7] |
| Timor-Leste | - |



In Indonesia, a state-owned company, Bio Farma, is responsible for conducting Research and Development (R&D) on vaccines and for commercial deals on vaccines, drugs, and medicines, together with the efforts of the National Agency of Food and Drug Control (BPOM). Indonesia has also locally produced three vaccines — IndoVac, AWcorna, and Inavac — with the involvement of some universities. This supports the country's ambition to be self-reliant and not overly dependent on the vaccine production of foreign countries.

Thailand has had three concurrent initiatives: HXP-GPOVac, by the Governmental Pharmaceutical Organisation (GPO); Baiya SARS-CoV Vax 1, by Baiya Phytopharm, a clinical-stage biopharmaceutical company incubated by the C.U. Innovation Hub at Chulalongkorn University; and ChulaCOV19, by the Faculty of Medicine at Chulalongkorn University. Bangladesh, which is on the United Nations (UN) list of Least-developed Countries, is undergoing clinical trials for the Bangavax vaccine.

Several efforts have been made in Cambodia to promote self-reliance, which include financing the purchase of vaccines, as the government struggled to do so on its own. While depending on vaccines from bilateral counterparts and the COVAX facility, Cambodia also set up a working group to discuss and design its vaccine research and production plan, demonstrating a desire for greater self-reliance in the face of future pandemics. A task force was created under Cambodia's Readiness for Future Vaccine Development and Production Plan to study the possibility of researching and manufacturing vaccinations. Prime Minister Hun Sen called for wealthy individuals in the country to donate their money to prepare to purchase vaccines whenever they were available on the market. This money was donated by private and wealthy individuals, civil servants, and others. This gesture was followed by senior government officials who donated salaries of three, six, or 12 months to the cause, including Hun Sen himself. However, this private donation by rich civil servants and others raises the issue of transparency and accountability for their monetary contributions.

**The countries that have received vaccines through COVAX are Bangladesh, Timor-Leste, Indonesia, Mongolia, Cambodia, Afghanistan, and the Philippines. It is acknowledged in this report that there is a need to have more support for the Trade-Related Aspects of Intellectual Property Rights (TRIPs) waiver, given issues such as the lack of vaccines in most countries.** For instance, Mongolia recognised its lack of vaccine self-reliance early and showed firm support for a TRIPs waiver for better vaccine access, especially in the Global South.

Policymakers have raised concerns about Timor-Leste's reliance on vaccine-producing countries, as it is a small country that lacks financial and human resources.

[1] Not approved by WHO.
[2] Approved by WHO (granted emergency use).
[3] Approved by WHO.
[4] Approved in India, not approved by WHO.
[5] None approved by WHO.
[6] Approved in Kazakhstan, not approved by WHO.

Self-reliance also remains impossible for low-income developing countries like Nepal, which relies heavily on India, does not produce vaccines independently, and has little sway in global geopolitics. The government was forced to accept whatever was given by donors and multinational organisations.

## Chinese vaccines and dependency

Agreements between China and Bangladesh on the purchase of Sinopharm and Sinovac vaccines in massive quantities illustrated how one country's dependency can be leveraged by another country for strategic or political gains. Around the same time that China sent Bangladesh 500,000 vaccine doses, it warned Bangladesh against joining the "Quad Alliance" (with Australia, India, Japan, and the US) or risking its bilateral relations with China. In addition, questions of favouritism — or unfair dealings, depending on one's perspective — were raised when Bangladesh's Cabinet Division claimed that vaccines cost USD10 per dose, even though China had sold the same vaccines to Sri Lanka for USD15 per dose. In Mongolia, approximately 90% of all vaccines received by 6 May 2021 were from China.

Research for this report strongly emphasises that Cambodia relies heavily on Chinese vaccines. The first batch of COVID-19 vaccines to arrive in Cambodia contained a Chinese-made vaccine not approved by the WHO at that time. Reliance on the Chinese vaccine was not only a priority, but the only viable option, for Cambodia to take precautionary measures against COVID-19, considering the scale of investment and donations from China in Cambodia, as well as Cambodia's already deteriorating relationship with the West, including the US and the European Union. In Thailand, the government's vaccine acquisition and distribution by the brand was plagued with a public outcry over the appearance of favouritism for inactivated virus vaccines from China (Sinovac and Sinopharm), as well as the purchase of viral vector vaccines (AstraZeneca) produced under contracts by the monarch's own company.

The metaphor of a black box is used in this report to refer to the Philippine government's special relationship with China and the largely opaque manner in which it publicly portrayed the Chinese government's involvement in its pandemic response. This lack of transparency was deemed a failure by the previous administration of President Duterte, but the Marcos presidency, starting in the second half of 2022, has also failed to ask its predecessor government to set the record straight. The black box is defined by four failures in transparency and accountability identified in the report: special treatment for China, premature and still unexplained use of Chinese vaccines, officials' ignorance of decisions and details of Chinese vaccines, and a corruption scandal involving pandemic funds.

## Transparency and accountability issues

**The 11 country reports show similarities in their findings on vaccine transparency and accountability. Data on the COVID-19 vaccine supply inventory, procurement, and overall pandemic spending are limited in all 11 reports.**



In Bangladesh, procurement irregularities and a lack of transparency have repeatedly been raised as causes of concern. This includes controversy and conflicting news regarding the expiration date of Pfizer vaccines, with one claim that the expired vaccines were returned and another that the WHO had permitted the prolonged use of the vaccines. No details regarding the procurement process for any brand were made public in Thailand, and Kazakhstan lacked clear procedures or publications on vaccine procurement or spending contracts. In all 11 countries, research indicated the lack of a mechanism to verify government data and disclosures related to COVID-19 vaccines, as well as a lack of subnational data on vaccination and the pandemic situation.

Without sufficient checks and balances in place, all of these countries faced the possibility of corruption. Due to price issues, diplomatic hurdles, and internal criticism, the Nepalese government appeared uninterested in disseminating procurement information. For instance, vaccine expiry dates were hidden, and Nepal signed a non-disclosure agreement with China regarding the price at which it purchased 10 million Sinopharm doses. Under the COVID-19 Law in Mongolia, the government can rearrange budget expenditures as it sees fit — as long as it does not exceed a budget cap — without parliamentary discussion and approval. Incidents such as highly budgeted procurements being announced for unusually short periods, caused public concern and called the integrity of processes into question.

## Ensuring government accountability

COVID-19-related fiscal transparency and accountability have been criticised not only by experts and civil society, such as the media and academia, but also by opposition politicians. The media is vital as a watchdog to ensure vaccine accountability and transparency. In India, it has held the government accountable for issues of vaccine wastage, vaccine distribution across states, and various inequities. In Nepal, where the government has not been transparent about procurement and vaccine spending information, most information regarding vaccines in the public domain comes from local media, including exposure of corruption in procurement.

India's judiciary has also played a crucial role in ensuring government accountability. A Supreme Court decision triggered a change in the procurement process of vaccines when the budgetary constraints of state governments were raised. In Timor-Leste, the Aid Transparency Portal (ATP) is the central repository for all aid information, aiming to improve aid transparency, accuracy, and predictability, and to ensure that assistance is efficient and effective. In Nepal, with no official data on vaccine procurement provided by the government, civil society and non-governmental organisations (NGOs) consolidated their data from various sources, such as diplomatic releases and newspapers, to make the numbers more transparent.

# PART III: CONCLUSION AND RECOMMENDATIONS

**While all 11 countries have somehow managed to contain the spread of COVID-19 through their respective vaccination strategies, the pandemic has revealed the structural inefficiencies they must address in the long term to improve their preparedness for providing healthcare services and capacity to cope with further health emergencies.**

This report highlights successes in some countries. For instance, Mongolia concluded that its vaccination program was implemented with relative success, with the crucial factor of access to vaccines enabling vaccination progress. Unfortunately, Mongolia's access to vaccine information, effective communication, and transparency regarding vaccine procurement are insufficient. Nepal's report indicated that the government had used various media to encourage citizens to vaccinate reasonably successfully. In the Philippines, while the populist approach was continued through the end of President Duterte's term, the rollout of the vaccination program in 2021 and its continuation into the third year of his administration turned out to be at least a partial success.

**All 11 countries, except India, have relied primarily on Chinese vaccines for vaccine coverage. Chinese vaccines have generated common debates across countries, and their wide use has raised the question of whether China's vaccine diplomacy contributes more to the international public good or to China's diplomatic gains and soft power projection. The handling of Chinese-made vaccines has led to problems with procurement, resistance from people questioning the safety of the vaccines, and political influence affecting the actions of some governments, such as Cambodia and the Philippines.**

While some recommendations are more context-specific across the 11 countries, many share generally applicable recommendations:

1. **Strengthen public health infrastructure.** Ensuring that marginalised communities are included is essential for achieving health equity.

2. **Strengthen self-reliance.** Cooperation with international organisations and donor countries is essential to ensure states' resilience. Efforts in favour of the TRIPs waiver on vaccines must be supported to move towards equitable vaccine access.

3. **Ensure appropriate and timely communication of vaccination information to all, including marginalised groups.** This is crucial for ensuring vaccine equity. Strategic, well-funded, and coordinated information campaigns can help to shape public opinion. Language, cultural context, and societal nuances should be considered when encouraging people to vaccinate and to overcome vaccine hesitation.

4. **Employ transparency.** Governments should be transparent about vaccine procurement and donations. The development and availability of data are essential in many ways, and this can also enhance accountability and build public trust.

5. **Exhaust all viable options.** Emergency-decree powers should be chosen only as a last resort, because they severely limit accountability and possibly make the government less mindful of public demands and outcries.

6. **Decentralise and be inclusive.** Although the national government may have primary responsibility, public health emergencies must be inclusive and ensure that all stakeholders are meaningfully involved, even if this means devolving powers to local bodies.

## ABOUT THE RESEARCHER

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VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# COVID-19 VACCINATION IN CAMBODIA:

## Rollout, Challenges, and Dependency

SOK LEANG

VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
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# PART I: INTRODUCTION

## 1.1. State and trends of COVID-19 and vaccination in Cambodia

The first case in Cambodia was reported on 27 January 2020. During the first year of the pandemic, the Royal Government of Cambodia was considerably successful in containing the virus, having very few community outbreaks (UNICEF and the World Food Program [UNICEF & WFP], 2021, p.11). Prior to the availability of vaccines, the Cambodian government imposed a series of strict containment and precautionary measures. It imposed lockdowns and curfews in areas where infections were detected and there were risks of community transmission. It imposed bans on travel between provinces, in order to avoid the disease being imported from one place to another. Cambodia also passed the law on National Administration in the State of Emergency in April 2020, but never actually invoked it. It cancelled public holidays and closed schools and businesses that posed a high risk of contamination due to high concentrations of people. Besides domestic controls, the government also put in place strict procedures of testing and institutionalized quarantine for people arriving in Cambodia from outside, including returning nationals (UNICEF & WFP, 2021, p.11). As a result, Cambodia showed great success in isolating COVID-19 cases throughout 2020, even reducing the reported incidence level to zero for several months in a row (UNICEF & WFP, 2021, p.5).

As of 28 February 2023, 95.47% of Cambodia's 16 million people had been inoculated and boosted (Ministry of Health, 2023). Cambodia has received and used six types of vaccines to inoculate the population, namely Sinopharm, Sinovac, AstraZeneca, Janssen, Moderna, and Pfizer. A total of 47.6 million doses had been administered (24.2 million doses on females) as of the end of February 2023 (see Table 2).

Cambodia, as a non-manufacturing country of vaccines, has received vaccines in different ways, including via donations from bilateral agreements, purchases, and distribution via World Health Organisation (WHO) COVAX facility mechanisms. It received AstraZeneca through bilateral assistance from Japan, the UK, South Korea, the Netherlands, Poland, Hungary, and Italy, as well as via COVAX; it received Janssen from the US via COVAX, Moderna via COVAX, and Pfizer from Australia. It has only purchased vaccines — Sinopharm and Sinovac — from China. It has also received these two vaccine types as donations from China.

Cambodia started its vaccination campaign as early as February 2021, when vaccines were still being developed and manufactured and when the WHO had not yet approved any vaccine, including the Chinese-made vaccines that Cambodia would largely depend on. Some time after Cambodia had begun rolling out Chinese-made vaccines, more vaccines were gradually approved by the WHO and Cambodia began to receive them via bilateral agreements and the COVAX facility.



**Table 1: Types of vaccines and sources in Cambodia**

| | Type of vaccine | Sources |
|---|---|---|
| 1 | Sinopharm | China |
| 2 | Sinovac | China |
| 3 | AstraZeneca | Japan, UK, South Korea, Netherlands, Poland, Hungary, Italy, and India via COVAX facility |
| 4 | Janssen (Johnson & Johnson) | USA |
| 5 | Moderna | COVAX facility |
| 6 | Pfizer | Australia, US[1] |

*Source: Ministry of Health (2023)*

Cambodia would go on to achieve one of the highest vaccination rates in the world, with 95.47% of its 16 million people inoculated and boosted as of February 2023, according to its government (Ministry of Health, 2023). Cambodia also introduced a sixth dose in January 2023 ("Cambodia's 6th dose," 2023). The high rate of vaccination coverage received applause from many, including WHO Regional Director for the Western Pacific Dr. Takeshi Kasia, who said, "I am very impressed by the remarkable achievements of the Cambodian government in leading the fights against COVID-19, including the effective vaccine roll-out" (WHO, 2022).

Vaccination in Cambodia proceeded according to the National Deployment and Vaccination Plan (NDVP), which defined priority target groups for vaccination, as well as the National Strategic Plan for Vaccinating COVID-19, which aimed to provide vaccine coverage to the entire country by the end of 2021, employing what it called a 'flower blossoming' approach.[2]

[1] Since July, 2021 the US has shared 3,057,930 COVID-19 vaccine doses with the people of Cambodia free of cost. This includes 1,999,530 Pfizer doses and 1,058,400 J&J doses. Of the 3,057,930 vaccine doses, 100% were donated in partnership with COVAX (U.S. Department of State, n.d.).

[2] Literally translating from Khmer words, the 'flower blossoming' approach refers to the fact that the vaccination campaign would grow outward from different target areas at the same time, thereby covering the whole country. The National Strategic Plan then stipulated the groups to be fully covered in those specific target areas.

## 1.2. Research methodology

This research employed a qualitative approach, in which empirical data was collected through key informant interviews and focus group discussions. Key informants included university academics; researchers; government officials; NGO staff working in advocacy, human rights, and labor rights; representatives of marginalized groups, including LGBT+, farmers, and migrant and informal economy workers, including construction, garment, and domestic workers; as well as locally-based and overseas-based Khmer language reporters. A focus group discussion was conducted with five representatives of vulnerable and disadvantaged populations,  each of whom was followed up with through individual communication for further elaboration.

### Individual interview

| | Name | Position | Date of interview | Method of interview |
|---|---|---|---|---|
| 1 | Interviewee 1 | Academic lecturer, Pannasastra University of Cambodia (PUC) | 31 Oct 2022 | Face to face |
| 2 | Interviewee 2 | Project Officer, Center for Alliance of Labor and Human Rights (CENTRAL) | 29 Nov 2022 | Online |
| 3 | Interviewee 3 | Former reporter, Radio Free Asia | 2 Dec 2022 | Online |
| 4 | Interviewee 4 | Director, Advocacy and Policy Institute (API) | 5 Dec 2022 | Face to face |
| 5 | Interviewee 5 | President, Association of Domestic Workers (ADW) | 7 Dec 2022 | Face to face |
| 6 | Interviewee 6 | Reporter, Thmery Thmey Online News | 15 Dec 2022 | Face to face |
| 7 | Interviewee 7 | Under-Secretary of State, Ministry of Information; journalist; book author | 22 Dec 2022 | Face to face |
| 8 | Interviewee 8 | Official, Ministry of Foreign Affairs and International Cooperation | 23 Dec 2022 | Face to face |
| 9 | Interviewee 9 | Reporter, Voice of Democracy | 24 Dec 2022 | Face to face |
| 10 | Interviewee 10 | LGBT activist | 11 Jan 2023 | Face to face |
| 11 | Interviewee 11 | Official, Building and Woodworkers Trade Union Federation of Cambodia (BWTUC) | 12 Jan 2023 | Face to face |
| 12 | Interviewee 12 | President, Coalition of Cambodia Farmers Community (CCFC) | 12 Jan 2023 | Face to face |
| 13 | Interviewee 13 | Deputy Secretary General, Independent Democracy of Informal Economy Association (IDEA) | 12 Jan 2023 | Face to face |
| 14 | Interviewee 14 | Land rights activist | 12 Jan 2023 | Face to face |
| 15 | Interviewee 15 | Land rights activist | 12 Jan 2023 | Face to face |
| 16 | Anonymous | Official, Ministry of Health | 5 Jan 2023 | Online |

### Focus Group Discussion

| | Name | Position | Date of interview | Method of interview |
|---|---|---|---|---|
| 1 | Interviewee 11 | Official, Building and Woodworkers Trade Union Federation of Cambodia (BWTUC) | 12 Jan 2023 | Face to face |
| 2 | Interviewee 12 | President, Coalition of Cambodia Farmers Community (CCFC) | 12 Jan 2023 | Face to face |
| 3 | Interviewee 13 | Deputy Secretary General, Independent Democracy of Informal Economy Association (IDEA) | 12 Jan 2023 | Face to face |
| 4 | Interviewee 14 | Land rights activist | 12 Jan 2023 | Face to face |
| 5 | Interviewee 15 | Land rights activist | 12 Jan 2023 | Face to face |

This research also examines secondary sources, including traditional and social media reporting, and available statistics regarding vaccine administration, as sources of empirical data.

# PART II: ON INFORMATION ACCESSIBILITY

## 2.1. Information seeking and availability

News on the arrival of vaccines to Cambodia was reported widely by various news outlets, and included the types of vaccines, number of doses, source countries, importation mechanisms employed, and whether the vaccines were purchased or donated. On some occasions where vaccines were purchased, the total cost was provided to the media upon the vaccines' arrival into the country. For instance, a cost of USD10 per dose was cited when Cambodia purchased the first 1.5 million doses of Sinovac, totaling USD15 million (Ouch, 2021). However, no detailed breakdowns of procurement costs and other related incurred costs, like storage and maintenance, were ever disclosed. Likewise, for vaccines received via donation, information on relevant incurred expenses were not made publicly available. Moreover, sources of total figures of vaccines received, remaining doses, vaccine wastage and expiry dates, and medical waste management are also not publicly available in a portal. Despite the range of missing figures, the Ministry of Health (MOH) did provide daily updates with statistics capturing the number of people vaccinated and types of vaccines used.[3] These updates began as soon as Cambodia's vaccine campaign commenced, in February 2021.[4] Table 2 is an example of daily update statistics indicating the types of vaccines administered, disaggregated by age group, country from which the vaccines had been received, and dose number.

[3] https://www.facebook.com/photo/?fbid=542361477920620&set=a.307506831406087

[4] The MOH continued to provide daily updates as of late February 2023.



**Table 2: COVID-19 Vaccination Progress Report in Cambodia From 10 February 2021 to 28 February 2023**

| No. | Vaccines | Vaccinated | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1st Dose | | 2nd Dose | | 3rd Dose | | 4th Dose | | 5th Dose | | 6th Dose | |
| | | Total | Femaie | Total | Female | Total | Femaie | Total | Female | Total | Femaie | Total | Female |
| 1 | Sinopharm | 3,750217 | 1,839,195 | 3,598,149 | 1,771,132 | 185,479 | 102,690 | 35,728 | 18,967 | 33,026 | 18,571 | 23,755 | 9,025 |
| 2 | AstraZeneca (Covishield) | 165,656 | 79,867 | 157,736 | 77,392 | 57,354 | 30,063 | 124,064 | 66,366 | 82,500 | 38,963 | 0 | 0 |
| 3 | AstraZeneca (Japan) | 184,061 | 89,710 | 176,786 | 82,904 | 965,356 | 434,510 | 6,881 | 2,389 | 0 | 0 | 0 | 0 |
| 4 | AstraZeneca (UK) | 452 | 133 | 81 | 36 | 414,507 | 136,526 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Sinovac (≥ 18 years old) | 5,234,232 | 2,727,657 | 5,065,827 | 2,613,059 | 3,362,910 | 1,839,607 | 222,808 | 122,310 | 220,699 | 116,998 | 234,479 | 84,822 |
| 6 | Janssen (Johnson & Johnson) | 1,053,151 | 549,307 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | AstraZeneca (KR) | 0 | 0 | 0 | 0 | 320,639 | 177,068 | 116 | 46 | 0 | 0 | 0 | 0 |
| 8 | Moderna | 0 | 0 | 2 | 1 | 217,119 | 113,874 | 135,517 | 57,263 | 0 | 0 | 0 | 0 |
| 9 | AstraZeneca (Netherlands) | 0 | 0 | 2 | 1 | 268,295 | 139,097 | 16,119 | 6,515 | 0 | 0 | 0 | 0 |
| 10 | Pfizer | 252 | 29 | 410 | 30 | 430,770 | 230,018 | 1,801,011 | 909,532 | 712,934 | 359,817 | 22 | 14 |
| 11 | AstraZeneca (Poland) | 0 | 0 | 0 | 0 | 240,045 | 126,849 | 53,233 | 23,585 | 0 | 0 | 0 | 0 |
| 12 | AstraZeneca (Hungary) | 0 | 0 | 0 | 0 | 237,674 | 125,575 | 231,202 | 150,626 | 0 | 0 | 0 | 0 |
| 13 | AstraZeneca (Italy) | 0 | 0 | 0 | 0 | 270,409 | 146,531 | 650,903 | 388,852 | 122,115 | 33,564 | 0 | 0 |
| Total ≥ 18 years old | | 10,388,021 | 5,285,898 | 10,052,144 | 5,093,862 | 6,970,557 | 3,602,408 | 3,277,582 | 1,746,451 | 1,171,274 | 567,913 | 258,256 | 93,861 |
| Total Sinovac (12-<18 years old) | | 1,851,100 | 915,605 | 1,797,946 | 893,239 | 1,245,597 | 636,111 | 135,496 | 72,804 | 180,303 | 101,360 | 18,615 | 10,069 |
| Total Pfizer Pediatric (12-<18 years old) | | 0 | 0 | 1 | 0 | 424,984 | 214,788 | 765,087 | 425,134 | 177,274 | 98,676 | 0 | 0 |
| Total Sinovac (6-<12 years old) | | 2,101,499 | 1,034,661 | 2,077,280 | 1,027,780 | 1,494,750 | 762,630 | 348,677 | 182,493 | 149,088 | 80,069 | 0 | 0 |
| Total Sinovac (5 years old) | | 433,532 | 219,038 | 383,103 | 194,795 | 100,246 | 52,074 | 25,030 | 12,891 | 8,887 | 4,662 | 0 | 0 |
| Total Sinovac (3-<5 years old) | | 500,345 | 255,196 | 332,386 | 170,115 | 83,427 | 42,720 | 11,096 | 5,819 | 0 | 0 | 0 | 0 |
| Total Pfizer Pediatric (6-<12 years old) | | 0 | 0 | 1 | 0 | 204,759 | 105,292 | 492,331 | 258,721 | 20,166 | 10,723 | 0 | 0 |
| Total Pfizer Pediatric (5 years old) | | 1 | 1 | 0 | 0 | 60,858 | 31,533 | 39,555 | 20,286 | 2,575 | 1,312 | 0 | 0 |
| Grand Total | | 15,274,498 | 7,710,399 | 14,642,861 | 7,379,791 | 10,585,178 | 5,447,556 | 5,094,854 | 2,724,599 | 1,709,567 | 864,724 | 276,871 | 103,930 |

*Source: Ministry of Health (2023)*

Citizens were informed about nearby locations where they could be inoculated. However, they were not informed in advance of the type of vaccines being used there; they learned this only at the site. For this reason, many people were not able to receive their preferred vaccine type. Village[5] leaders played an important role in going door to door to inform household members about the date and time of each family member's vaccination, as well as the documents to bring to the vaccination site (Interviewee 1, personal communication, 29 November 2022). Some saw this approach as ineffective, particularly in rural areas, because local-level authorities received instructions to inform people but were unable to respond to those same people's inquiries (resulting in a perceived lack of accountability for duty-bearers) (Interviewee 1, personal communication, 29 November 2022). Village Health Support Group volunteers also provided local support coordinated by the National Immunization Program (NIP) team (MOH, 2021).

Facebook is the most popular social media platform in the country, with almost 12 million users among a population of 16 million (Simon, 2022). Thus, the Facebook accounts of the Prime Minister and the MOH were both cited by the government as official and reliable sources of information (Nary, 2020).

While information was regularly provided via social media and other channels, it was notably difficult to obtain detailed explanations or to ask follow-up questions, even for reporters. Efforts to seek further clarification on public announcements issued by government agencies were not very productive, as reporters were usually fed with the same information that was already publicly available. At times, the officials in charge would promise to send relevant documents as requested, but they would ultimately send the same documents that were previously released (Interviewee 6, personal communication, 15 December 2022; Interviewee 9, personal communication, 24 December 2022).

Reporters were also generally not permitted to physically travel to document pandemic-related stories on location. They were required to have a unique travel permit, issued by the Ministry of Information[6], in addition to their press ID card. Not all news reporters were informed of this travel permit requirement[7], and even for those with permits, many still faced challenges in gaining access to affected areas, as local authorities feared that journalists would report unfavorably on sensitive issues (Interviewee 6, personal communication, 15 December 2022).

Though it did not make specific COVID-19 data more accessible to the public, the MOH — together with the WHO and UNICEF in Cambodia — made an effort to conduct outreach and produce education materials on how to prevent the risk of COVID-19[8], how to wear face masks[9], and guidance on 'what to do' and 'what not to do' (MOH, 2020).

[6] The Ministry of Information is mandated to issue official licenses for media outlets and press ID cards, as well as to revoke these. The Ministry of Information also issued press travel permits during the periods of lockdown, which extended only for a specific duration and for specific geographical areas.

[7] For the four reporters interviewed in this research, only one female reporter was able to receive this travel permit, while the others were not aware about this requirement.



## 2.2. Where to get what vaccine

One challenge, as noted above, is that people were not generally able to choose the vaccine, despite many expressing a preference for non-Chinese manufactured vaccines. For example, in one case a group of domestic workers in Phnom Penh learned about the availability of the Janssen vaccine from people in another province, but they could not afford to travel and feared they might not receive the Janssen vaccine if they travelled there; ultimately they gave up and received the locally-available Chinese-made vaccine so they could receive vaccination cards, allowing them to access other services, employment, and specified areas (Interviewee 5, personal communication, 7 December 2022). The necessity of having a vaccination card to access certain areas was an element of post-lockdown rules. For example, the Phnom Penh municipality issued a directive on presenting COVID-19 vaccination cards or letters certifying vaccination for all access to educational institutions, markets, and other business locations in the capital.[10]

Those living in urban areas reportedly perceived this system as an attempt by the government to withhold WHO-approved vaccines from them after they had been critical of the government's decision to inoculate the population with the unapproved Chinese-made vaccines early on (Interviewee 3, personal communication, 2 December 2022; Interviewee 4, personal communication, 5 December 2022). Earlier in 2021, when the government introduced the Chinese-made vaccines, and there were public demands for WHO-approved vaccines and negative news coverage of the vaccination campaign, the government announced that the WHO-approved Janssen vaccine would go to indigenous people in remote provinces in the northeastern part of the country. It also announced that these vaccines would be reserved for returning migrant workers from Thailand. This was seen as leaving the population of the capital and other urban areas out of reach of the Janssen vaccine, which was considered to have one of the highest efficacy rates among COVID-19 vaccines (Interviewee 3, personal communication, 2 December 2022).

[8] Video explaining how to take precautions and prevent the risk of COVID-19 https://www.youtube.com/watch?v=GB2ndfemstI&t=24s

[9] Video on how to wear face masks in order to prevent and mitigate COVID-19 related risks https://www.youtube.com/watch?v=GYJpkBa3lTA&t=8s

# PART III: ON ENSURING EQUITY

While the vaccination plan introduced in 2021 indicated specific groups had been taken into consideration (see Table 3), it did not lay out a clear strategy to ensure vaccine equity. The plan was later changed to focus more geographically, with the government citing community outbreaks and the availability of vaccine administration facilities as its rationale. Later, more options were added for the administration of vaccines, including mobile vaccination clinics. Though vaccination was voluntary during the early stage of the campaign, greater measures by the government to speed up the rate of vaccination — including pressure such as restrictions on those not vaccinated — led to concerns among human rights groups. For instance, Human Rights Watch argued that vaccine mandates threatened people's basic human rights, such as by denying unvaccinated people access to food, medical care, or education without considering medical exemptions (Human Rights Watch, 2021).

**Table 3: Priority Group for Vaccine in Cambodia Distributed by Phases (MOH, 2021)**

| Phase | Population group (% of group targeted) | % of population |
|---|---|---|
| First | 1. All healthcare workers (100%)<br>2. Frontline armed forces/police (100%)<br>3. Frontline government officials (100%) | 3.3% |
| Second | 1. Community focal persons and volunteers (100%)<br>2. Elderly population (65 years above) (50%)<br>3. Adults 16-64 years old (50%)<br>4. Moto taxi drivers, tuk tuk drivers, and others (100%)<br>5. Garbage workers and others (100%)<br>6. Garment factory and construction site workers (50%)<br>7. Foreigners 16 years and older per category of target group in this phase | 31.7% |
| Third | 1. Elderly population (65 years above) (50%)<br>2. Adults from 16-64 years old (50%)<br>3. Garment factory and construction site workers (50%)<br>4. Foreigners 16 years and older per category of target group in this phase | 30% |
| **Total** | | **65%** |

As shown in Table 3, there were three phases to inoculate different priority groups, which in total were meant to cover 65% of the population. The first phase targeted three population groups, comprising 3.3% of Cambodia's population. Two months after the campaign started, on 9 April 2021, the government also granted access to vaccines to foreigners residing and working in Cambodia, free of charge (Kunthear, 2021). Once vaccines became more available later in 2021, there were concerted efforts to reach out to remote populations via the establishment of mobile stations (Vandine, 2021).[11] Ultimately, more than 95% of the total population was vaccinated.

Because the initial plan for inoculation was not realised as planned, as the focus on priority groups shifted to a focus on densely populated areas before moving on to less populated and then remote areas (SNEC, 2021), this meant that the vulnerabilities of the initial target groups were not prioritized. For example, the vaccine campaign started with four national hospitals[12] in the capital city[13], and within a month vaccination services expanded to six national hospitals, all of which were provincial and operational district referral hospitals (Vandine, 2021); this meant that priority groups without access to these locations needed to wait.

## 3.1. Challenges of vulnerable groups' access to vaccines

*"The International Organisation for Migration (IOM) Cambodia urged all governments to include migrant workers in their national COVID-19 vaccination plans, while the Ministry of Health has prioritised the provinces bordering Thailand and Vietnam for vaccination but only for carefully chosen priority groups."* (Chheng, 2021)

Although specific groups were listed as priority groups, not all vulnerable groups were considered. For instance, indigenous people and other ethnic minorities, people with disabilities, LGBT+, entertainment workers, domestic workers, and people living with HIV/AIDS were not included in the list.

According to one LGBT+ activist interviewed, people living with HIV/AIDS were more vulnerable than the general population — not only because of heightened health risks, but also because the lockdown and traffic closures prevented them from getting access to their regular medications. Lack of access to vital medications also affected LGBT+ people who worked in Thailand and needed to regularly cross the border into Cambodia to access essential drugs (Interviewee 10, personal communication, 11 January 2023).

People in the informal economy, such as street vendors and trash pickers whose livelihoods depend on day-to-day income-generation activities, were also not given priority access to vaccines. According to a key informant working directly with these groups, they remained largely marginalized until later in the campaign when vaccines

[11] In 2019, Cambodia's census showed 60.6% of the population as rural and 39.4% as urban (NIS, 2022).

[12] MOH No. 033 SaKhaSa, Press Release on COVID-19 Vaccination, 8 February 2021, https://www.freshnewsasia.com/index.php/en/localnews/186465-2021-02-08-03-03-51.html

[13] MOH No. 036 SaKhaSa, Press Release of MOH on Implementation of COVID-19 Vaccination Campaign in the Kingdom of Cambodia, 8 February 2021, https://www.freshnewsasia.com/index.php/en/localnews/186592-2021-02-09-05-37-35.html

had become more generally accessible. This meant that the vaccine rollout did not specifically account for these highly vulnerable and often food insecure individuals and families, and it did not enable them to return to their vital income-generation activities as early as possible (Interviewee 13, personal communication, 12 January 2023).

Construction workers and brick kiln workers — though specially mentioned in the initial plan of priority — were trapped within their compounds without access to vaccines as a result of lack of state inclusion. In kiln factories, some owners reportedly placed a barricade separating themselves from the workers, depriving these workers of essential support and freedom of movement. Construction workers were largely confined in construction sites, and many did not know where to access vaccines (Interviewee 11, personal communication, 12 January 2023).

Cambodian migrant workers in Thailand formed another high-risk group, as they faced challenges both while in Thailand and upon returning to Cambodia. Despite the pandemic spreading fast across Thailand throughout 2020, Cambodian migrant workers were not able to receive vaccines. Many lost their jobs but preferred to remain there in hiding hoping that they would regain employment after the situation improved (Interviewee 2, personal communication, 29 November 2022). Many of these workers subsequently lost their jobs because they had not been inoculated. At some factories in Thailand, employers had access to vaccines specifically for the workers to be able to continue the factories' production activities. However, this initiative did not benefit the many migrant workers in Thailand who were undocumented and would face legal measures by the Thai authorities if they were found to be working without proper documentation (Interviewee 2, personal communication, 29 November 2022).[14] On 26 June 2021, the Thai Minister of Labor made an announcement that Cambodian migrant workers would be provided with access to vaccines, but they needed to show working permits (Soeum, 2021). This requirement meant that undocumented migrant workers in Thailand remained susceptible to the virus.

As marginalized groups were not prioritized and remained stigmatized, CSOs played an important role as voices and advocates for their vaccination and for additional support to be made available to these groups (Interviewee 2, personal communication, 29 November 2022). For instance, trade unions played a crucial role in mobilizing whatever support they could muster and finding ways to deliver essential supplies to these people on a regular basis (Interviewee 11, personal communication, 12 January 2023). Migrant workers returning from Thailand were supported at border crossings through cooperation between the IOM, the WHO, UNICEF, and the government. However, according to labor rights workers, this response could be considered situational as it was responding to a crisis rather than setting out to meet the real and comprehensive needs of specific groups (Interviewee 2, personal communication, 29 November 2022).

[14] 'Undocumented workers' are illegal migrant workers who work in Thailand without all required legal documents.



## 3.2. From voluntary to mandatory COVID-19 vaccination

At the outset of the vaccination campaign, the government faced multiple challenges, including concerns among the public about the potential negative effects of Chinese vaccines and refusal to receive these vaccines in hope of later receiving WHO-approved ones. When non-Chinese vaccines arrived, the government faced additional challenges as these were not available at every vaccination site. When the first Janssen vaccine became available, the government announced that the single-shot vaccine would be used to inoculate minority groups in remote mountainous areas, as opposed to urban areas with high-density populations (Dara, 2021).

When the vaccination campaign started on 10 February 2021, the government announced that vaccination was voluntary[15]. During this time, a small number of civil servants were publicly casting doubt on the safety of the Chinese-made vaccines, leading to concerns that some might resist getting inoculated voluntarily. To make vaccination efforts more rigorous, the government moved from its voluntary approach to mandating vaccinations for government officials and civil servants (Vandine, 2021). The Prime Minister issued a principle of mandatory vaccination, explaining that civil servants and armed forces personnel who remained unvaccinated following the government's appeal would be subjected to administrative punishment (Pov, 2022).

Civil servants were also encouraged to have their family members inoculated. The three initially prioritized groups (health care workers, frontline armed forces/police, and frontline government officials) were encouraged to play active roles in pushing their family members to get inoculated and thereby protect their whole family. The government hoped that mandatory vaccination of government workers would also promote the message that, if government workers were inoculated, there was no reason for ordinary citizens to refuse the vaccine (Interviewee 3, personal communication, 2 December 2022).

The fast-moving vaccination campaign was also intended to aid in hastening the reopening of the country and the resumption of normal life. The sub-national commune election was to be held on 5 June 2022, and the government sought to ensure a high turnout with minimal resulting transmission of the virus. Ultimately, turnout for the commune election was reported to be at 80.32% of the total registered voters (NEC, 2022), and the ruling party headed by the Prime Minister won with 74.32% of the popular vote (NEC, 2022), though it bears mentioning here that the chief opposition party was dissolved in 2017 and remains outlawed.

While the government strongly pushed the case that its staff being vaccinated first would instill confidence and trust among the wider public, others share a different view. According to one journalist interviewed, this preference displayed a systemic

[15] MOH No. 036 SaKhaSa, Press Release of MOH on Implementation of COVID-19 Vaccination Campaign in the Kingdom of Cambodia, 8 February 2021, https://www.freshnewsasia.com/index.php/en/localnews/186592-2021-02-09-05-37-35.html

inequality, in that people in positions of power could exercise the privilege of becoming the first vaccinated. This view holds that government officials made the decision to benefit their own people while marginalized communities were made to wait (Interviewee 3, personal communication, 2 December 2022).

Further inequity was raised in relation to the distribution of pandemic-era social assistance. During the imposed curfews and lockdowns, the government provided some social assistance based on the defined category of "poor people". Consequently, those fitting the defined category prior to the pandemic were provided social assistance, whereas those in the neighborhood who had fallen into desperate poverty as a direct result of the pandemic were largely ignored. An NGO that worked on providing assistance during the pandemic observed this situation while providing social assistance to vulnerable communities, explaining that, for example, people who had been employed prior to the pandemic were unable to access social assistance, even if they had subsequently lost their jobs during the pandemic (Interviewee 4, personal communication, 5 December 2022).

### 3.3. Combating misinformation and negative coverage to avoid interruption of the vaccination rollout

To reduce unwanted negative news and rumors about vaccine inoculation and other barriers to the population getting vaccinated, the government promulgated the Law on Preventive Measures Against the Spread of COVID-19 and Other Severe and Dangerous Contagious Diseases on 11 March 2021 (Law on Preventive Measures, 2021). The law was intended to impose health, administrative, and other measures to combat and prevent the spread of COVID-19, while also prohibiting the spread of misinformation. For the purpose of implementation, the law was followed by two government sub-decrees containing penalty provisions.[16] On 17 March 2021, the government created an Ad-Hoc Committee for Rolling-out COVID-19 Vaccination throughout the Country (ACC-19) to manage, lead, and supervise vaccination work nationwide (Sub-decree to Create Ad-Hoc Committee, 2021).

Days prior to the introduction of this law, the government deported a Chinese reporter working for a local newspaper who had reported that Chinese people were charged a service fee of USD120 to receive the Sinopharm vaccine (Narin, 2021). Immigration officials alleged at the time that this reporter had published "fake news", thus causing "social chaos" (ibid.).

Soon after the introduction of the Law on Preventive Measures, multiple people were arrested, detained, or charged under its provisions. A 35-year-old man was arrested and sent to court on 13 April 2021 for posting short clips on TikTok claiming that a number of people had died after getting a COVID-19 vaccination. The man was referred to the investigating judge, who charged him with "obstructing the implementation of [COVID-19] health measures" under Article 11 of the law, with a penalty of 6-36 months in prison and a fine of KHR2-5 million (USD500-1,250) (Samean, 2021).

The Prime Minister stated in a public speech regarding fake news that people should "not take the COVID-19 issue as a joke, it is not acceptable. This is not a right of expression. The world is against fake news, why can Cambodia not do it?" He then warned that "Anyone who uses COVID-19 to destroy public safety will face legal action" (Riyaz, 2022).

Even before the law was introduced, any information that the government deemed insulting was met with punishment, to make an example of the speaker. An online journalist who cited on his personal Facebook page an excerpt from a speech by Prime Minister Hun Sen about the economic consequences of COVID-19 was arrested and charged with incitement to commit a felony, for affecting social security, order, and safety (Ljubas, 2020). In another example, after the Prime Minister gave a speech hinting at the possible imposition of a state of emergency in the country, a chicken farmer altered the wording of comments made by Hun Sen and gave them poultry-related references instead; the farmer was charged with incitement and public insult, and was placed under detention (Sovuthy, 2020). He was later sentenced to 18 months' imprisonment and ordered to pay a USD500 fine by the Phnom Penh Municipal Court (Kongkea, 2021).

[16] The law stipulates administrative punishments (suspension or revocation of the business license, certificate or permit, closure of business) and criminal punishments (transactional fine, monetary fine, imprisonment).

# PART VI: ON SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

As a country not manufacturing COVID-19 vaccines, Cambodia has relied on imported vaccines to inoculate its population. Chinese vaccines presented the most viable option for Cambodia, taking into consideration the geopolitical context, and in particular the growing relationship and influx of investment and aid from China, as well as a rapidly deteriorating relationship with the West.

## 4.1. Cambodia's reliance on China before COVID-19 vaccine availability

Over the past decade, Cambodia has observably leaned more closely towards China. Indeed, China has provided ever-increasing assistance to Cambodia, in what is termed 'the culture of sharing'. Cambodia's close relationship with China is also evident in the amount of Chinese investment in Cambodia and the debt owed by Cambodia to China. China is now Cambodia's largest debtor, aaccounting for over 43% of Cambodia's foreign debt (MEF, 2022). China's lending power and investment came at an important moment for Cambodia, effectively offsetting the losses caused by the withdrawal of EU[17] and US[18] trade preferences. This new reliance on Chinese aid and investment set an important prerequisite for the Cambodian government to seek further support from China, including throughout the pandemic.

Others have commented on Cambodia's current tectonic shift toward China, including Chanborey (2021), who discusses three possible correlations between China's growing influence and the backsliding of Cambodia's democratization process. First, Cambodian leaders have increasingly looked towards Beijing not only as a development model but also for governance guidance; second, Western leverage over Cambodia in the promotion of democratic values has significantly declined, in part due to China's largesse; and third, China's political support has, to some extent, allowed Phnom Penh to be confident that the cost of anti-democratic discourse is not too high.

Cambodia received seven tons of medical supplies from China for prevention, control, and response to COVID-19 ("7 Tons," 2020). In the early months of the pandemic, and in a calculated demonstration of support for China, the Prime Minister travelled to Beijing in February 2020, despite the active COVID-19 outbreak in the city. He did so in order to express "solidarity with the Chinese government and Chinese citizens in this time of difficulty" (Kimmarita, 2020). According to one journalist interviewed, the visit to Beijing perhaps presented an opportunity or a call for Western governments to provide Cambodia with offers of support to address the growing threat posed to it by the pandemic, but this did not eventuate (Interviewee 3, personal communication, 2 December 2022).

In the meeting with Hun Sen in Beijing, Chinese President Xi Jinping reiterated that China had the confidence and capability to win the fight against the virus, adding that China would continue to maintain an "open and transparent attitude" to enhance cooperation with all countries, including Cambodia, to not only fight the disease but also "maintain global and regional health security" (Liang, 2020). Moreover, China's national media stressed that Cambodia had shown itself to be a true friend of China, particularly at a time when China was experiencing adversity (Liang, 2020).

Around a month and a half later, the Chinese government sent a team of medical experts to Cambodia to help the country fight the COVID-19 pandemic, and Foreign Ministry spokesperson Geng Shuang was reported in Chinese state media as hailing the "ironclad" friendship between the two sides (China Global Television Network, 2020). Finally, in January 2021, in recognition of their "outstanding contributions" in helping Cambodia fight the pandemic, members of the 15th military medical expert team of China's People's Liberation Army to Cambodia were awarded "Peace Knight Medals" by the Cambodian Defense Ministry (Xingwei, *et al*, 2021).

## 4.2. Government efforts to build public confidence in Chinese-made vaccines

Cambodia started its rollout of Chinese-made vaccines prior to WHO approval, arguing the more people quickly inoculated, the better. As such, the government tried to convince the public of the efficacy of the Chinese-made vaccines (Huaxia, 2020).

To build public trust in Chinese-made vaccines, the Prime Minister declared that he would be the first to get one on the first day of the vaccination campaign. He later postponed this schedule due to the age limit of the Sinopharm vaccine. In any case, the country had ensured that senior officials in the government and close relatives of the Prime Minister were among the first to get the jabs (Kunthear, 2021).

To further build public trust and confidence in the Chinese vaccines, and to reduce fear among the public, the government justified the use of Chinese-made vaccines by mentioning China's and other countries' leaders who had already received the jabs. Cambodia has claimed its success was due to efforts to buy directly from manufacturers, and to international and bilateral donations which resulted in Cambodia becoming the first country in Southeast Asia to receive vaccines from the COVAX facility. The Cambodian program was also reliant on donations from Chinese partners, which allowed Cambodia to start its vaccination campaign (SNEC, 2021, p2).

[17] On 12 February 2020, the Commission decided to partially withdraw trade preferences for products imported from Cambodia due to serious and systematic violations of human rights. This was the first time the Commission adopted a partial withdrawal of tariff preferences (European Union, 2020).

[18] U.S. delays reauthorization of GSP, tariffs now applicable on Cambodian travel goods (Sarath, 2021).

Hun Sen has claimed that reliance on China for vaccines was the right decision, saying: "I was asked why I had turned [diplomatically] towards China. I said, – if I do not rely on China, whom do I rely on? Tell me. It's just the truth. Many people promised me much – but in the end, promises are not vaccines – and it was only the Chinese vaccines that actually arrived" (Kunthear, 2021). He also said that Cambodia had sought to procure vaccines from other sources but opted to depend on supplies from China as they were more readily available (Kunthear, 2021). He said he would welcome any criticism of the plan, noting that certain countries had called for him to deposit money in advance, but not stipulating when those vaccines would actually arrive, and he refused to do it because it was millions of dollars (Kunthear, 2021).

The government made repeated announcements about its reliance on Chinese vaccines while at the same time questioning the accountability of technologically and medically advanced countries in the West to ensure a fair share of vaccines for the rest of the world. The government was determined to contain the virus as its priority, according to an official from the Ministry of Foreign Affairs and International Cooperation:

> "*The main aim was to win over COVID-19 and to contain the disease. To contain the disease, a vaccine strategy is needed… [We are] proud that it was the right decision to go ahead with the Chinese vaccine as a strategy. Without that right and timely decision, Cambodia would face the situation in countries like Vietnam, India and those in Africa. It was a risky approach by the government to administer vaccines before WHO's approval. But this shows the high trust level the government of Cambodia has in its Chinese counterpart.*" (Interviewee 8, personal communication, 23 December 2022).

According to the same official, the Cambodian government stands firmly by its decision to rely on Chinese manufacture and provision of vaccines:

> "*The government of Cambodia was very well aware of criticism pointed at Cambodia for reliance on Chinese vaccines and possibly falling into the vaccine diplomacy rhetoric as well as geopolitically. However, Cambodia was realistic that it would not be able to produce COVID-19 vaccines[and] knew for sure that it had to depend on other manufacturing countries, and was also certain that it was not in the distribution network of the Western vaccines*" (Interviewee 8, personal communication, 23 December 2022).

## 4.3. Attempts at self-reliance

According to the same official, Cambodia learned throughout the pandemic that absolute self-reliance was not possible. For example, even the EU and the US relied upon oxygen tanks from China, face masks from India, and so on (Interviewee 8, personal communication, 23 December 2022). This reportedly made the decision to rely on Chinese vaccines easier for the government, even before the concerted efforts by Chinese diplomats to lobby their allies to rely on China's vaccines. The decision to rely primarily on China was also compounded by the fact that those Western countries that would go on to produce higher quality vaccines also had a tendency to sell these mostly to their wealthy allies.

However, a number of government efforts were seen to seek some level of self-reliance. As the vaccines would need to be purchased, in December 2020, the Prime Minister announced that the government would buy vaccines and administer them for free to the entire adult population. He then called for rich individuals in the country to donate their money so that Cambodia could purchase vaccines whenever they became available in the market. Just one day after the announcement, USD30 million was reportedly raised (Huaxia, 2020). Numerous private wealthy individuals, along with some civil servants, reportedly responded to the call by contributing money. This gesture was followed by senior government officials, including the Prime Minister himself, who donated three to 12 months' salary to the cause.

While depending on vaccines from bilateral counterparts and the COVAX facility, Cambodia also set up a working group to discuss and design its own plan for vaccine research and production, demonstrating a desire for greater self-reliance in the face of future pandemics. Called Readiness for Future Vaccine Development and Production in Cambodia (Ministry of Industry, 2022), the plan created a task force to study the possibility of Cambodia researching and manufacturing its own vaccines. However, according to one government official interviewed for this research, this is widely seen as beyond the country's capacity and resources (Interviewee 8, personal communication, 23 December 2022).

## 4.4. Transparency and accountability

While efforts were made to give daily updates on the number of vaccines administered, these efforts have also been criticized for a lack of transparency in other aspects of vaccine-related information, including the remaining types and doses of vaccines and their expiration, data on wastage and the management of the waste, and relevant expenses.

While the government's public data in relation to procurement was lacking, media professionals also found it challenging to access relevant information. Reporters who tried to obtain more detailed information about the procurement process and expenses were not successful in doing so (Interviewee 3, personal communication, 2 December 2022). CSOs that were included in working groups with government agencies in charge of COVID-19 issues, and those working on public health related issues, also could not access information other than what had already been made publicly available. For instance, some CSOs were privy to various social media groups on Telegram, WhatsApp, and elsewhere that had been created by government agencies in order to share information, but they experienced the same situation as experienced by the reporters. These CSOs looked to independent media sources in search of further data, at the same time that the journalists were contacting them for further data (Interviewee 4, personal communication, 5 December 2022).

As such, CSOs also had very little ability to reliably verify information. There were no mechanisms for civil society to verify COVID-19 vaccine information coming from primary and official sources (Interviewee 4, personal communication, 5 December 2022). The only sources to rely on were from the government, which affected CSOs' ability to inform the public about where people could go in order to access the types of vaccines they preferred (Interviewee 4, personal communication, 5 December 2022). Crucially, this lack of information also made it difficult for CSOs to seek transparency and demand accountability from the government.

In addition, no explicit complaint mechanism was established regarding COVID-19 vaccine distribution or inoculation. There was no way for parties outside the government to check for or work toward addressing irregularities related to vaccine procurement and distribution. Seeking accountability in relation to the government's vaccine rollout and decision making was also not possible for those minor opposition political parties which would, in a liberal democracy, be active and vocal in holding the government accountable. Cambodia has been under complete control of the ruling Cambodian People's Party (CPP) since 2018, when the party captured all 125 seats in the National Assembly. Consequently, pandemic and vaccine related decisions were not meaningfully debated in the National Assembly, given that the entire political system in Cambodia is effectively controlled by one party and does not tolerate dissent.

According to respondents interviewed, only large international NGOs such as the WHO were involved at the decision-making levels. For example, the WHO and the MOH in Cambodia conducted a number of joint press conferences over the course of the pandemic, focusing on technical themes relating to public health and epidemiology. Though the government plan explicitly mentions working with local civil society, this would ultimately take the form of sharing information with CSOs rather than allowing them meaningful participation or oversight in relation to procurement and planning (Interviewee 4, personal communication, 5 December 2022).

As a comprehensive data portal is not available, efforts to seek out further information took different forms by different actors. Even so, all such actors faced significant challenges. Both locally-based and overseas-based actors found it difficult to get any further elaboration from the relevant ministry, as one local reporter explained:

> "*Access to information is difficult as the appointed spokespersons to address reporters' questions were not enough in number compared to the high number of reporters who may seek further information, or the spokespersons would not provide further insight into the situation besides what is already in the official statement. For example, when there were cases of death or breakouts, the population wanted to learn about those events and it is the media's role to report further, but that was usually [impossible] as they would not be able to receive the needed interview or response.*" (Interviewee 6, personal communication, 15 December 2022).

Another reporter tried to seek information about procurement and related expenses from the Ministry of Economy and Finance (MEF) but was unsuccessful, forcing him to find his own ways to calculate relevant figures. A reporter at a Washington-based Khmer language media outlet who compiled a list to track vaccine arrivals in Cambodia until January 2022 explained,

> "*As a reporter, we track [arrivals] by ourselves and enter into our list the name of the vaccines and through what mechanisms Cambodia received those doses, how many doses, whether they were donated or purchased. However, there is no information about how much each dose costs. We just take note of that information and immediately record them on our list. It is sometimes difficult for independent media to interview the Ministry of Health officials*" (Interviewee 3, personal communication, 2 December 2022).

Occasionally, MOH officials mentioned the total number of vaccines Cambodia had received. For example, during a "giving and receiving" event on 3 July 2022, during which Poland donated 144,000 doses of Pfizer vaccines, the MOH reported that the number of vaccine doses donated and purchased by the Kingdom had reached 53 million. The MOH Secretary of State was also quoted as saying, "Cambodia now has about nine million doses left in stock" (Kongnov, 2022).

The researcher requested access to this data, but a senior official at the MOH refused to share it, saying she could not help because "this research had not received approval from the National Ethics Committee for Health Research in Cambodia" (Anonymous, personal communication, 5 January 2023).

Regarding information about the expiry and wastage of COVID-19 vaccines, the MOH Secretary of State and National Ad-Hoc Vaccination Committee chairwoman was reported in a 2022 news article as saying: "The committee was committed to finishing the Pfizer doses as well as others before their expiry. The vaccines will not be wasted as the vaccination campaign is continuing in the country." However, she refused to comment specifically on what would happen to the doses that would be expiring soon (Sreyline, 2022).

In summary, civil society, independent journalists, and members of the public had very little room throughout the pandemic to verify state-issued information, as the only available source of information was the government itself. This affected CSOs' ability to inform the public of where people could receive vaccines — including different types of vaccines — and the nature and severity of community outbreaks (Interviewee 4, personal communication, 5 December 2022).

# PART V: CONCLUSION

Cambodia has achieved one of the highest vaccination rates in the world, with more than 95% of the total population vaccinated. However, though Cambodia may be seen as a model and a case study for other countries to learn from in terms of vaccination, it was lacking in transparency; a database of vaccine procurement, maintenance, management, and related costs was not made available. Media and CSOs found the government's information lacking and needed further details and explanation beyond the publicly available information.

The government drew up vaccination plans prioritizing different groups. The evolution of the COVID-19 situation shifted the vaccination campaign to focus on most-affected areas, and then launched the campaign based on geographical areas, starting from the most populated areas before moving on to less populated areas. There was a lack of assurance of equity for vulnerable and marginalized groups in terms of getting their preferred vaccines. The vaccines were provided first to those closest to decision makers, and subsequently subject to the availability of vaccines. However, a huge number of available vaccines later enabled the campaign to reach a wider population, including foreign staff and migrant workers in Cambodia, as quickly as possible. Chinese vaccines were the most used for inoculation. Though CSOs were included in the government's plan for wider consultation regarding vaccination efforts, they were not meaningfully engaged, meaning they had little ability to enhance vaccine equity by more actively and effectively providing essential support for those affected by the pandemic.

As a non-manufacturer of vaccines, Cambodia's government put a lot of effort into procuring vaccines from available sources, including preparing to purchase vaccines whenever available. To get the population involved, the government initiated fundraising from among the population, in part as a show of solidarity. Vaccination was clearly reliant on Chinese-made vaccines, which was an outgrowth of earlier technical and humanitarian assistance. The government made extra efforts to fight against any news or information deemed to undermine the vaccination campaign, rather than pursuing transparency and accountability.

## 5.1. Recommendations

A reporting and grievance mechanism should be established to ensure transparency and accountability are taken seriously, and to learn about and tackle irregularities rather than suppressing calls for these things. This could potentially build more confidence in the government's efforts and contain the disease.



The government should utilize certain existing resources, including independent media actors, CSOs, and trade unions, by incorporating them into a stakeholder engagement plan or through a meaningful consultation processes, in order to provide timely information, fight disinformation and fake news by providing accurate information, and reach certain marginalized and vulnerable groups with access to vaccines and essential support.

Cambodia should initiate an ASEAN regional hub to fight the pandemic collectively, in terms of research and development to prepare for future pandemics, in order to avoid each member country struggling in a vaccine diplomacy contest.

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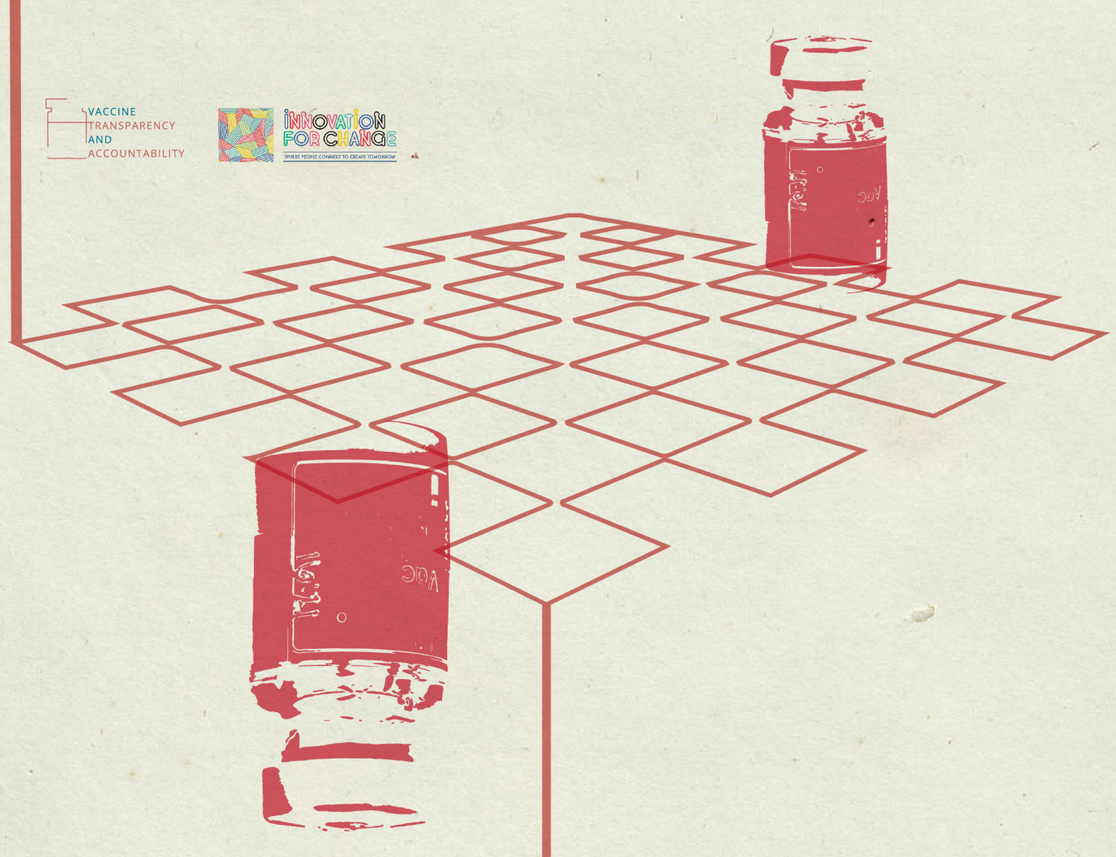
## ABOUT THE RESEARCHER

Sok Leang is a human rights and gender equality advocate, researcher, and trainer. He has conducted various research on Vulnerability of Labor Trafficking in ASEAN, with a particular focus on Cambodian migrants to countries in the region; alternative dispute resolution (ADR) in Cambodia; women's leadership in labor sector and post-conflict transitional justice mechanism. He has been providing training on human rights and gender equality to civil society organizations, local authorities, and affected communities. Moreover, he has been a board member of certain organizations. He has been a part-time lecturer of Sociology and Cultural Anthropology at universities in Cambodia.

VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW



# INDONESIA'S VACCINE STRATEGY:

## Half-Hearted in Transparency and Accountability

RIDAYA LAODENGKOWE

# PART I: INTRODUCTION

## 1.1. State and trends of COVID-19 and vaccination in Indonesia

Indonesia's first COVID-19 case was announced on 2 March 2020. According to the Ministry of Health (MoH, locally known as Kemenkes), by the time Indonesia's vaccination program began on 13 January 2021, there were 907,929 reported cases of COVID-19 and 25,987 reported deaths, or a 2.9% case fatality rate (CFR) (Ditjen P2P, 2021).[1] According to Indonesia's Task Force to Handle the COVID-19 Pandemic (Satgas),[2] as of 8 February 2023, there were 6,731,959 confirmed cases and 160,852 deaths, or a 2.4% CFR (Satgas, 2023).

Of Indonesia's total population of 275,361,267 (Dukcapil Kemendagri, 31 August 2022),[3] national COVID-19 vaccination programs have targeted 234,666,020 people, or 85.22% (Vaksin Kemenkes, 2023). This targeted number comprises medical staff, public servants, vulnerable groups, teens (12-17 years old), kids (6-11 years old), and the general public. According to Satgas data as of 21 February 2023 (Table 1), around two years after the vaccination programs rolled out, 86.84% of the national target had received a first dose, 74.51% a second dose, 29.83% a third dose, and 1.05% a fourth dose (Satgas, 2023). Considering that the main reference for achieving herd immunity is the percentage of the total population who have received primary doses (doses 1 and 2), the figure to date of 63.5% is still well below the government's target of 85.22%. An important note on the target is that initially, as announced in January 2021, the MoH targeted only 181.5 million people for the vaccination programs, or roughly 70% of the population (Kemenkes, 28 January 2021). This was based on its conservative assumption that it did not need to target non-vulnerable adult groups. Later data from the MoH showed the number increased to also include vulnerable groups, teens, and kids in the target, reflecting advancements in vaccine development and trial results. The vulnerable groups according to the MoH are those living in areas

[1] Case Fatality Rate (CFR) is a measure of severity of a particular disease, in this case COVID-19, by defining the total number of deaths as a proportion of reported cases of a specific disease at a specific time (see O. Sabur, 17 February 2021).

[2] The Satgas is a task force that consists of representatives of line ministries and agencies, coordinated by the National Agency for Disaster Management (BNPB), to enable closer coordination of all line ministries and agencies that take necessary actions to handle the COVID-19 pandemic. The political background in the early days of the pandemic was that the response from the MoH was unsatisfying, downplaying the scale of the pandemic (see Lindsey & Man, 2020). Instead of using a health affairs legal framework, to be led by the Minister of Health, President Joko Widodo decided to use a disaster legal framework, led by the BNPB.

[3] According to a mid-year official announcement from a directorate in the Ministry of Home Affairs, the interim projection data from the Indonesia Statistical Agency (Badan Pusat Statistik, 2022) showed 275.77 million people as of November 2022.



with high rates of COVID-19 infections (Kemenkes, 29 December 2020).

**Table 1: Indonesia's vaccination progress in numbers (as of 21 February 2023)**

| | Number of people | % of population |
|---|---|---|
| Total population | 275,361,267 | |
| Vaccination target | 234,666,020 | 85.22% |
| | | |
| Vaccination | | % of target (% of population) |
| Vaccinated dose 1 | 203,790,100 | 86.84% (74.01%) |
| Vaccinated dose 2 | 174,850,887 | 74.51% (63.50%) |
| Vaccinated dose 3 | 69,996,580 | 29.83% (25.42%) |
| Vaccinated dose 4 | 2,460,686 | 1.05% (00.90%) |

*Source: https://covid19.go.id/. The percentage is the author's calculation based on figures from the Satgas webpage as of 21 February 2023.*

The vaccination program began on 13 January 2021, with President Joko Widodo the first to get the first jab publicly (Agence France-Presse, 13 January 2021). Two weeks earlier, the MoH announced a national COVID-19 vaccination program in all 34 provinces (Kemenkes, 3 January 2021).[4] The program was designed in two periods: (1) January - April 2021, targeting medical staff in all provinces, public figures, civil servants and state apparatus staff (police, military, and public transportation workers and stewards), and the elderly; and (2) February 2021 onward, covering vulnerable groups and the general public (Kementerian Kesehatan, 15 February 2021). To achieve these targets, Indonesia targeted 0.7-1 million people per day (Kemenkes, 15 June 2021), though the data confirm it fell far short of the target. As of 25 July 2022, the MoH had also missed its target of completing the primary doses in June 2022 (H.D. Situmorang, 18 January 2022), reaching only 97.10% and 81.55% of the first and second dose targets, respectively (D.E. Nugraheny, 25 July 2022).

Before the vaccination program, the MoH claimed to have secured 400 million doses, and it was optimistic about securing 468.8 million doses to vaccinate 181.5 million target individuals. By February 2022, it had acquired 500 million doses (Satgas COVID-19, 9 February 2022). In its initial announcement on 29 December 2020, the MoH shared with the public that these included Sinovac from China (100 million doses), Novavax from the US (100 million), AstraZeneca from the UK (100 million), Pfizer from the US and Germany (100 million), and vaccines of unknown type and quantity from COVAX/GAVI, the global vaccine access scheme (Kemenkes, 29 December 2020).

[4] Since September 2022, there has been an addition of four new provinces in Indonesia: three in Papua (South Papua, Central Papua and Papua Highlands), and another in West Papua (Southwest Papua). Including these, Indonesia has 38 provinces. However, the vaccination data of these four new provinces have not been shown independently, as they are still included in figures for the original provinces.

Behind these numbers were bilateral and multilateral diplomatic efforts, led by the Minister of Foreign Affairs, to secure international supply for Indonesia's needs (The Jakarta Post, 13 July 2021; see also Killian & Noviryani, 2021). For instance, Indonesia received a donation of 2.5 million doses of the AstraZeneca vaccine by July 2021 from Australia (Foreign Minister Australia, 7 July 2021), and by November 2021, it had received 10 million doses of the same (Foreign Minister Australia, 10 November 2021). Indonesia also secured commitments from other countries, including the US, Japan, and Singapore. The US government granted four million doses of the Moderna vaccine via the COVAX Facility.[5] Japan sent one million doses of AstraZeneca (The Jakarta Post, 13 July 2021). However, China remains the largest supplier of vaccines to Indonesia (see Table 2).

**Table 1: Indonesia's vaccination progress in numbers (as of 21 February 2023)**

| | |
|---|---|
| Total | 171,364,570 |
| CoronaVac 1 dose (for medical staff and grant) (China) | 4,107,780 |
| COVID-19 Bio Farma (China) | 104,368,200 |
| AZ (Covax, B2B, grant) (UK) | 20,136,284 |
| Moderna (US) | 7,871,318 |
| CoronaVac 2ds (China) | 29,697,878 |
| Sinopharm (grant) (China) | 720,766 |
| Pfizer (US, Germany) | 4,462,344 |

*Source: Bio Farma Press Release 22 September 2021 (Bio Farma, 22 September 2021)*

Indonesia also set policies and regulations for handling the pandemic. The four most notable such measures were: (1) the Government Regulation in Lieu of Law (Perpu Nr. 1 of 2020), the overarching policy on management of the pandemic; (2) the Presidential Regulation on Vaccine Procurement and Vaccination Programs (Perpres Nr. 99 of 2020); (3) the Presidential Gazette on the Establishment of the National Team for the Acceleration of the Development of COVID-19 Vaccines (Kepres Nr. 18 of 2020); and (4) the Minister of Health Regulation on Vaccination Programs Implementation (Permenkes Nr. 10 of 2021).

The first policy, the Government Regulation in Lieu of Law on State Financial Policy and Financial System Stability for Management of COVID-19 Pandemic and/or in Dealing with Threats that Endanger the National Economy and/or Financial System and Stability (Perpu Nr. 1 of 2020), laid the policy groundwork to control the pandemic, mainly through financial and extra-economic tools, including government spending on vaccine procurement and vaccination programs. The second policy, the Presidential

[5] The COVAX Facility is a global collaboration initiative to accelerate the development, production, and equitable access to COVID-19 tests, treatments, and vaccines. Its ultimate goal is to guarantee fair and equitable access for every country in the world. https://www.who.int/initiatives/act-accelerator/covax.



Regulation[6] on COVID-19 Vaccine Procurement and Vaccination Programs (Perpres Nr. 99 of 2020), provided a legal basis for the COVID-19 vaccine procurement process, acceleration of the procurement process, and vaccination programs, with comprehensive instruction to the line ministries to take convergence actions to support from upstream to downstream. The third policy, set by Presidential Gazette Nr. 18 of 2020, established a national team for the acceleration of the development of COVID-19 vaccines. This inter-ministerial policy essentially mobilised Indonesia's capacity and resources in developing a COVID-19 vaccine domestically, supervised by the Coordinating Minister of Economic Affairs. The fourth policy was the implementing policy for vaccine procurement and vaccination programs, the Health Ministerial Regulation on the Implementation of Vaccination in the framework of Combating the COVID-19 Pandemic. The regulation reiterated the responsibility of MoH authorities in the vaccine procurement process, in determining the amount and which vaccines to be procured through Bio Farma, the state-owned pharmaceutical holding company.

## 1.2. Research methodology

This research has been carried out through first-hand collection of information from persons involved in vaccine procurement and distribution, and also uses published data, press releases, and independent press sources. However, after attempting to reach out to a handful of people at the MoH — especially within the Directorate General of Disease Prevention and Control (DG P2P) — and at PT Bio Farma and the House of Representatives Committee on Health Care, only a few people agreed to be interviewed: two from parliament, one public health expert, three from media and civil society organisations, and a midwife. Government members contacted were unwilling to talk, citing reluctance to engage with someone working on personal research.

**Table 3: List of respondents**

| | Name | Association | Date of interview | Method of interview |
|---|---|---|---|---|
| 1 | Nihayatul Wafiroh, PhD (F) | Deputy Chair, House of Representatives (DPR) Commission on Health | 25 Nov 2022 | Direct interview |
| 2 | Latifatul Hasanah, MPH (F) | Expert staff, House of Representatives (DPR) Commission on Health | 29 Nov 2022 | WhatsApp chat |
| 3 | Irma Hidayana, PhD (F) | Co-founder and co-leader, LaporCovid19; Public Health Postdoctoral Teaching Fellow, St. Lawrence University | 1 Dec 2022 | Zoom interview |

[6] A presidential regulation is similar to an executive order in other legal systems.

| | | | | |
|---|---|---|---|---|
| 4 | Ahmad Arif (M) | Journalist, KOMPAS; activist; co-founder, LaporCovid19 | 18 Feb 2023 | Phone interview |
| 5 | Elly Burhaini Faizal (F) | Journalist, The Jakarta Post | 18 Feb 2023 | Zoom interview |
| 6 | Wana Alamsyah (M) | Activist, Indonesia Corruption Watch | 21 Feb 2023 | Direct interview |
| 7 | Anonymous midwife (F) | Midwife and civil servant, Banggai Laut regency | 23 Feb 2023 | Phone interview |

Regarding Bio Farma, the person I reached out to responded that neither they nor anyone in the management team is talking to unofficial parties on this matter, as they are under the audit of the Supreme Audit Agency (BPK). According to this person, the company has disclosed the necessary information through the public domain, and further information on procurement and distribution has been part of the ongoing audit process. The person said that they do not want to create another line of information from what has been disclosed through press releases and audits. Attempts to track insight from inside the company on this matter were also not successful.

Therefore, this report relies mostly on official publications of government agencies, especially press releases, with the help of media[7] coverage to construct the data and analysis. Government press releases can be seen as a proxy to understand the government's position on certain issues, although this certainly has limitations. Press releases contain data in writing that can be directly quoted for the purpose of examination; they do not, however, provide information on why certain numbers and vaccines are picked or determined, or why other information is missing.

[7] Among these were Kompas.com, Tempo.co, and Thejakartapost.com, as well as a growing number of online news outlets such as CNN Indonesia, Detik.com, VivaNews.com, CNBCIndonesia.com, and Tirto.id.



# PART II: ON INFORMATION ACCESSIBILITY

In the second half of 2020, more public information on the vaccines' potential availability and their specifications, including information on Indonesia's efforts and ability to produce them domestically, was aired. Two policies highlight the kind of information about the vaccines that was aired and discussed in the public arena: the Presidential Regulation (Perpres Nr. 99 of 2020) and the Presidential Gazette (Kepres Nr. 18 of 2020). Although the Presidential Regulation on Vaccine Procurement and Vaccination Programs (Perpres Nr. 99 of 2020) does not specify the responsibility of the institutions mandated by the Perpres, ie. the MoH, the Food and Drug Control Agency (BPOM), and Bio Farma, to disclose information about vaccines, it is still their responsibility to do so according to Indonesia's Public Information Transparency Act (Law Nr. 14 of 2008).

As the authority controlling all vaccine testing or trial, sales, and distribution, BPOM plays a pivotal role in determining the amount of public information about them. This agency has taken a proactive approach to disclosing information on the specifics of vaccines for which it grants an emergency use authorisation (EUA), which can be followed through the BPOM's press releases and news coverage. Normally, it shares information through press briefings or press conferences attended by the head of the BPOM, coupled with press releases. This regularity of this disclosure, which includes some technical specificity and carries the perceived expertise of people within the agency, has built public trust in the reliability of such information (E.B. Faizal, personal communication, 18 February 2023). This trust was heightened after Indonesia's Islamic Scholar (known as Ulama) Council, the MUI, backed the BPOM by declaring the vaccines as religiously permissible or halal; the significant majority of Indonesia's population is Muslim, and this was a significant endorsement for many of them.

The MoH also typically echoes BPOM statements, quoting them in its own media statements and press releases. As the institution that is responsible for procuring COVID-19 vaccines through Bio Farma, the MoH provides information on the availability of vaccines to cover the national target. In the early months of the vaccination programme, the MoH disclosed information on where vaccination sessions would take place, and how many people or doses each session would involve, through media releases and the "*Peduli & Lindungi*" (Care and Protect) application. Such information on vaccination centres, aside from the ones in community health centres or hospitals, then spread through social media, by word of mouth, through mosque loudspeakers informing and encouraging citizens, or person-to-person and door-to-door information from neighbourhood and social association committees (E.B. Faizal, personal communication, 18 February 2023).

The Satgas was formed, and developed a webpage[8], amid the growing number of cases in the early days of the pandemic. The task force was established partly because of public outcry over the slow response from the MoH (The Jakarta Post, 17 March 2020a). For instance, a coalition of civil society organisations in Jakarta urged President Widodo to dismiss Health Minister Terawan Agus Putranto from his position due to an "absence of sensitive, responsive and effective leadership" in handling the COVID-19 outbreak in the country. The coalition further stated, "the risks faced by Indonesia at the moment cannot be handled without a health minister who understands public health policies" (The Jakarta Post, 17 March 2020b).

The Satgas regularly conducted press conferences and issued press releases with updates on case numbers and actions taken by government agencies, and it tried hard to gauge public confidence toward central government measures to mitigate the pandemic's harms amid public ignorance, low awareness, denial, and misinformation about the spread of the pandemic to some parts of the country (The Jakarta Post, 11 October 2020). The Satgas faced public criticism over the slow actions taken by government agencies on certain issues, and it tried to counter misinformation that spread through social media (The Jakarta Post, 20 December 2020).

The Satgas launched a Twitter account, @satgascovid19id, which it used to spread its messages to the public.[9] It strengthened its messaging by regularly posting graphics that contained useful data, information, or persuasive messages. One graphic that is widely spread and forwarded contains updated case data that is formatted to resemble the Indonesian identity card. Journalists also used this as an addition to their reporting coverage (E.B. Faizal, personal communication, 18 February 2023).

It also posts information about cases and fatalities on its webpage. Nowadays, the webpage still does its initial job of collecting sub-national data and disclosing the data in a coherent manner, alongside information about other disasters in the country. The webpage also includes vaccination data, but since the MoH is gaining public confidence in its handling of cases, especially vaccination, the MoH webpage is much more detailed in this regard.[10] It includes a daily update on vaccinations that is disaggregated by dose number, age group, and vulnerability (defined as those who live in high case areas), as well as whether doses are given to medical or public servant staff or a member of the general public. The information is fairly detailed, but it does not specify the vaccine brands used (or the quantity used). The same goes for the BPOM, which is responsible for vaccine authorisation decisions but does not provide a dedicated page for information about vaccines authorised. It does disclose information about brands of vaccines, but this is scattered in the press releases that follow events such as vaccine arrival or other business events.

[8] https://covid19.go.id/

[9] https://mobile.twitter.com/satgascovid19id. The bio information shows the account started in September 2020.

[10] https://vaksin.kemkes.go.id/



The distribution of vaccines from Bio Farma to healthcare facilities is managed by the MoH. According to the MoH Decree on Technical Guidance for Vaccination Programs (KMK Nr. 4638 of 2021), there are required steps for planning, requesting, and distributing vaccines; it has also assigned a hierarchy to orders from different levels of governments (central > provincial > regency/municipal) to guide and control the distribution and administration of vaccines in healthcare facilities and other public facilities. Given the spread of local health agencies (*dinkes*), hospitals, and health care facilities down to the district level (*kecamatan*) in village areas, or down to the village level (*kelurahan*) in urban areas, for citizens to access vaccines, they need to follow announcements from healthcare facilities, or from social groups or companies that organise vaccination sessions.

Early in the vaccination rollout, information was spread through public announcement facilities such as mosque and church loudspeakers, as well as through mobile announcements from village or district administrations. In some neighbourhoods, community leaders visited people to give information. In urban areas, information was spread through conventional media channels and social media platforms. The organisers of vaccination sessions were not strict on domicile addresses (Y. Astuti, 26 June 2021); people could get their jabs with ID cards for the first jab and their vaccine certificate for the second jab.

Later, the MoH launched the "*Peduli & Lindungi*" smartphone application, which informs people where vaccination sessions are available nearby, allows them to register for vaccination there, and stores information on the date and type of the person's prior vaccine dose(s). It provides detailed information on where that type of vaccine is available and how many doses are available there for each program hour. After the jabs, the app also generates a printable digital certificate. It enables access to a wide range of information on COVID-19, cure services information, telemedicine, and vaccination programs. App users primarily live in urban areas or are travellers; people who live in villages or do not travel by public transport did not feel the need to use the app, and they were also less likely to get vaccinated (A. Amindoni, 15 September 2021).

In village areas, where the Internet is still limited, vaccination programs rolled out through older-style mass mobilisation programs[11] involving local administration officials, local health agencies, religious groups, the army, police, and other groups (Sumber Klampok, 11 March 2022). Various local-style campaigns took place to persuade and encourage people to get vaccinated (Setda Kota Cirebon, 18 August 2021).[12] However, these were conducted amid a massive flow of fake news about the pandemic and vaccines (The Jakarta Post, 7 December 2020), and those who were influenced by such misinformation felt less social pressure to get vaccinated.

[11] For example, the village administration used a small truck with a loudspeaker to announce the vaccination program in Sumberklampok village, Kerogak District, Buleleng Regency, Bali.

[12] Cirebon Municipality, in West Java Province, paired the vaccination with a package of groceries to attract more people to get vaccinated.

This group is among the vulnerable groups that are susceptible to being infected by COVID-19. The gap between the target and achieved vaccination rates show that these groups are still big in Indonesian society.

Agencies made efforts to disclose public information, with limitations. There was a massive effort to reach out to citizens, from the central government to the village level. This included the deployment of public servants to many regions to accelerate the vaccination rate, including military officers, police officers, other public servants, and social associations. Information about vaccine specifications and vaccination sessions was widely reported in social and mass media and broadcasting channels. In short, there has been an abundance of information about vaccines and vaccination programs released by the authorities, with the help of the press, broadcasters, social media, academia, and other societal agents, with the exception of some information related to the distribution or utilisation of the vaccines by type or brand, and their financial values.



# PART III: ON ENSURING EQUITY

Indonesia does not use the "vaccine equity" terminology with regard to the COVID-19 pandemic (at least in the government agencies' reports, press releases, and statements covered by this research). Instead, government officials and reports only use the term "target" or "vaccination target" to refer to those who are the aim of vaccination programs.

At the beginning of the vaccination programme in January 2021, the government set a lower target. As noted above, this number was based on a conservative calculation that excluded certain age groups and certain medical pre-conditions, due to limited test results and preliminary information on vaccine side effects (I. Hidayana, personal communication, 1 December 2022; E.B. Faizal, personal communication, 18 February 2023). All the early tests for EUAs were conducted with the intended target of those above 18 years old and physically healthy. Therefore, at the time this target was announced, the public protested as it fell short of targeting 70% of the population to be vaccinated, which was understood as necessary to achieve herd immunity (N. Wafiroh, personal communication, 25 November 2022; I. Hidayana, personal communication, 1 December 2022; The Jakarta Post, 22 December 2020; A. Syakriah, 22 December 2020).

Excluded from the vaccination target were those in certain age groups, such as the elderly, and those with certain medical pre-conditions. The government seemed to have no solution for how these groups could be protected from possible infection. Civil society groups, observers, and politicians urged the government to do something to include these groups (N. Wafiroh, personal communication, 25 November 2022; I. Hidayana, personal communication, 1 December 2022; The Jakarta Post, 22 December 2020; Syakriah, 22 December 2020). Only much later, vaccine producers conducted more vaccine candidate tests to include other groups, and the BPOM gained the confidence to include these groups in the national target of the vaccination programme. The current target of 234 million people includes the elderly, children, teens, and those with medical conditions who were initially excluded.

To achieve the target, the national government pushed regional governments (i.e., 34 provincial, 416 regency, and 98 municipality governments), which in turn pushed district (*kecamatan*), village (*desa*) and urban village (*kelurahan*) administrations to intensify the vaccination program. For instance, on 3 February 2022, the Ministry of Home Affairs — considered the contact point between local governments and the central government — issued a circular letter to local governments to take several steps (Kemendagri, 3 February 2022).

The first was for the regional governments (provincial, regency, or municipality) to take the local administration-based approach. Different local governments seemed to do so with different styles. The government of Bali, for instance, delegated authority

to villages (*kampung*) (Fajar Bali, 30 July 2021), while Jakarta delegated authority to neighbourhoods (Rukun Warga) (A. Faisal, 1 March 2021). The second was for the local governments to build vaccination centres at places such as parks, malls, community centres, terminals, and so on, to be accessible to the public. This approach was typically done in urban areas, such as in Bogor Municipality (Bogor Utara, 4 November 2022), and done in addition to the administrative-based vaccination centres at community health centres (*puskesmas*) (Anonymous midwife, personal communication, 23 February 2023).

Third, vaccination was to be carried out on a mobile basis, especially in areas that are difficult to reach, or where people were reluctant to go to the vaccination centre. For example, in South Nias Regency, the local Health Agency (*Dinkes*) proactively visited and distributed the vaccine in cool boxes to three of the seven community health centres in archipelagic villages, including some with no electricity, which threatened the durability of the vaccine (H.Y. Halawa, 16 February 2021). A similar approach was taken by Pangkajene Kepulauan Regency's Health Agency (Pangkep Kabupaten, 1 November 2021).

Fourth, vaccination was to be carried out door-to-door targeting the elderly, another proactive approach that was crucial for vulnerable groups. This approach was taken in Aceh (K. Surry, 21 February 2022), Maluku (P.F. Mayaut, 5 May 2021), and Kutai Barat of East Kalimantan (Diskominfo Kaltim Province, 19 January 2022). The same approach was taken to reach differently-abled people with mental health issues in Temanggung of Central Java (Jatengprov, 10 September 2021).

Local governments and vaccination teams or committees on the ground also used other strategies, such as: providing grocery packs (*sembako*), as in Cirebon City (Setda Kota Cirebon, 18 August 2021) and Jember (PPID Desa JemberKab, 5 March 2022); handing out social assistance (A.A. Muhamad, 18 April 2022; Sumberagung, 2022); and providing door prizes for people willing to take part in vaccinations, such as in Yogyakarta (Kedaulatan Rakyat, 28 January 2022).

Furthermore, to accelerate the vaccination rate, the Ministry of Finance took a number of fiscal policy actions. For example, in June 2021, it instructed local governments to refocus their spending to minimise the impacts of the pandemic by, among other things, rolling out vaccination programmes at the local level (I.A. Pribadi and Katriana, 5 July 2021). At the regency level, in the first months of the vaccination programs for the general public, vaccinations took place in community health centres (*puskesmas and pustu*), which were targeted to vaccinate 70% of the population in their administrative unit or coverage area (some *puskesmas* cover more than one village), as long as their vaccine stock was sufficient. Later, additional vaccination centres were set up in public areas to reach out to as many people as possible to achieve the 70% target, with additional staff (paramedics, midwives, and non-medical staff) deployed as vaccinators after taking an online course (Anonymous midwife, personal communication, 23 February 2023).

For local governments, such changes to their spending, as instructed by the Ministry of Finance, had serious implications for their operations. On the one hand, they needed



to sacrifice other important activities; on the other hand, they needed to do this to receive funding and keep their administrations in motion. Therefore, their energy, time, and attention had to be switched to the vaccination program in their areas, to meet the target set by the central government: 70% of the population in every administrative unit must be vaccinated to achieve herd immunity. Otherwise, their spending performance would be weakened, with potential longer-term repercussions (PMK Nr. 94 of 2021).

The above-mentioned approaches to expanding vaccination reach have achieved significant progress. Given the approaches are carried out in an open and inclusive manner, there are not many issues of targeting certain groups of society, except diffable groups, elderly, and teachers, and the efforts have largely succeeded in certain areas (Kemenkes, 30 September 2021). There were efforts taken to reach out to indigenous groups, such as Baduy communities in Banten (Kemenko PMK, 21 October 2021). No reference data exists to check the result of reaching out to Baduy, but a source confirmed their participation was low due to the lack of strategic communication approaches (A. Arif, personal communication, 18 February 2023). Local community health centres with assistance from KKI Warsi, a non-governmental organisation based in Jambi, took a similar approach to other indigenous groups, such as Suku Anak Dalam (N. Mairiadi, 17 December 2021), Batin Sembilan in Jambi (W. Septiawan, 9 August 2021), and Ammatoa Kajang in South Sulawesi (Ars Pontianak Post, 6 November 2022).

To meet the vaccination target, Indonesia committed to procuring vaccines from various producers through Bio Farma, intensified efforts to develop a vaccine, and secured international commitments from countries such as Australia, Singapore, Japan, China, the US, the UK, the Netherlands, France, and Greece (Kemenko Perekonomian, 19 May 2021).

**Table 4: Government of Indonesia vaccine purchase orders as of May 2021**

| Vaccine | Amount (doses) | Timeframe |
|---|---|---|
| Sinovac | 147 million | Up to November 2021 |
| Novavax | 50 million | July to December 2021 |
| Novavax (multilateral COVAX GAVI) | 54 million | Up to December 2021 |
| AstraZeneca | 20 million | Up to December 2021 |
| Pfizer | 50 million | July to December 2021 |
| Pfizer (bilateral from COVAX Gavi) | 60 million | |
| Sinopharm (for *Gotong Royong*) | 15 million | |
| **TOTAL** | **398 million** | |

*Source: Press Release of the Coordinating Ministry of Economic Affairs 19 May 2021 (Kemenko Perekonomian, 19 May 2021*

Given that there is no systematic data disclosure, interested parties can only piece together information: the above number is close to the number disclosed on 22 January 2021, as many as 426.8 million doses estimated to cost around IDR66.5-73.3 trillion (USD4.2-5.1 billion) (Kemenko Perekonomian, 19 May 2021); however, these numbers cannot be reconciled with vaccine arrival data, which is not regularly updated. The latest comprehensive vaccine arrival data released by the government was in October 2021, which specified 66.78 million doses of Sinovac, 33.46 million doses of AstraZeneca, 8.45 million doses of Sinopharm, eight million doses of Moderna, 22 million doses of Pfizer, and 500,000 doses of Janssen (Satgas COVID-19, 26 October 2021). After October 2021, there were occasional announcements of vaccine arrival for a single brand, by different government agencies, but most of this was presented as piecemeal data, not systematically conveying the round of arrivals by batch number or the total number that had arrived. Therefore, it is hard to reconcile the publicly available data with the initial data when the vaccination programme began.

### 3.1. Private-sector collaboration in vaccination

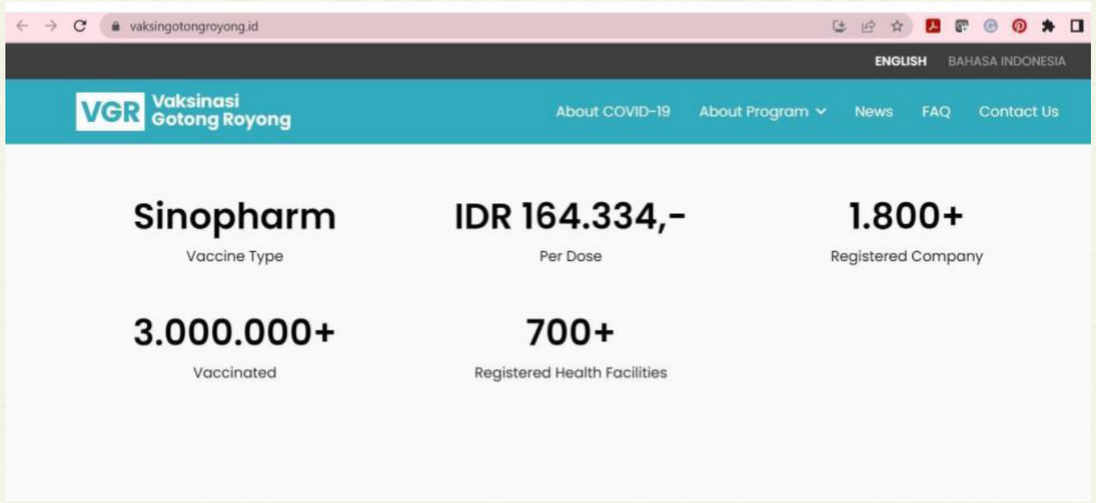
Private-sector collaboration (*vaksinasi gotong royong*) is the vaccination program carried out by private entities such as hospitals or medical clinics. The idea was first raised by the Indonesia Chamber of Commerce and Industry (KADIN) business groups, as well as government cabinet members with former KADIN ties, who aired their willingness to help Indonesia to achieve its herd immunity target.

The engagement of these circles cannot be separated from the current administration's wider governing strategy, which is business-friendly and investment-oriented. The government engaged KADIN and its youth group (HIPMI) for both political support and strategic political marketing. Civil society groups, academia, and commentators looked at this kind of engagement in the vaccination programmes as one-sided (E. Primayogha, 13 July 2021; I. Hidayana, personal communication, 1 December 2022; A. Arif, personal communication, 18 February 2023).

The progress of this private-entity collaboration in vaccination is shown in Figure 1. The numbers confirm the utilisation of the procured doses, as of 22 February 2023, was still one-third of the targeted 10 million for the program as registered by KADIN as of 19 May 2021 (Kemenko Perekonomian, 19 May 2021). However limited, this private entity collaboration vaccination has expanded access to vaccines in the country to those who do not want or qualify for public vaccines (such as foreigners).



**Figure 1: *Vaksinasi Gotong-Royong* (private-entity collaboration vaccination) status as of 22 February 2023**




*Source: https://www.vaksingotongroyong.id/*

Any attempt to ramp up vaccination moving forward will be a challenge. Although the number of infections is reportedly still high, there is a widespread sense among the public that the pandemic is in the past (E. B. Faizal, personal communication, 18 February 2023). Along with misinformation about vaccines, and scepticism and opposition toward the government, this makes it difficult to increase the number of people vaccinated beyond the existing number (Satgas COVID-19, 4 June 2021; E. Dyah, 21 June 2021). This is even more the case for private-entity collaboration, which is not free.

Indonesia's measures might be best characterised as relying mainly on government initiatives and mechanisms, with non-governmental agents playing supplementary roles in both vaccination and its promotion. The results have been mixed. The figure of vaccine coverage by province so far as shown on the MoH vaccines webpage (as of 22 February 2023), taking the second dose as the reference, suggests there are still disparities between more and less populous provinces. Half of the provinces are still below the target of 70%, though all age groups are fairly close to or above the 70% target. For other categories, such as indigenous groups, there is no data.

One thing lacking was the participation of community groups in promoting vaccination programmes (N. Wafiroh, personal communication, 25 November 2022). In Baduy indigenous communities, for instance, only a small percentage of community members were vaccinated in their remote *kampung*, as vaccination was conducted there without the engagement of supporting groups from outside (A. Arif, personal communication, 18 February 2023). The best option for the government to ensure the success of such a programme now is to allow any support, be it religious or faith-based groups, or other groups that could mobilise, educate, and convince people to take the jabs (N. Wafiroh, personal communication, 25 November 2022; A. Arif,

personal communication, 18 February 2023). Some people might listen and follow more government-led initiatives, but some might have different preferences. It may now be too late for such an approach, but this may still be worth exploring with various adjustments, given the changed status of the disease from pandemic to endemic (E.B. Faizal, personal communication, 18 February 2023).



# PART VI: ON ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

As noted in the issuance of the Perpres Nr. 99 of 2020, the government has tried to secure vaccine supplies since at least the third quarter of 2022 (The Jakarta Post, 13 July 2021). It achieved significant results in terms of commitments from foreign producers (Killian & Noviryani, 2021; S. Strangio, 22 April 2021), especially China, which provided a significant number of vaccine supplies due to the long-term trading relationship between the two countries (The Jakarta Post, 13 July 2021; W. Alamsyah, personal communication, 21 February 2023; E.B. Faizal, personal communication, 18 February 2023).

After securing a supply commitment, Bio Farma — the government-designated agency — has to obtain an EUA for any COVID-19 vaccine, based on MoH specifications regarding quantity and timeline, before purchasing it (Perpres 99 of 2020). According to Indonesian laws, the agency that is responsible for authorising the COVID-19 vaccine is the BPOM.

## 4.1. Vaccine self-reliance

The BPOM granted EUAs for 13 types of COVID-19 vaccines (see Table 5), of which three are claimed as developed domestically (numbers 11-13 in Table 5), and only nine can be used as boosters (two of them local vaccines).[13] Numbers 1-5 are the ones that obtained EUAs early, and they have been used more widely than the rest in the list (A. Firdaus, 17 October 2022). Although domestically-produced vaccines obtained political and popular support, their EUAs were only applied for and granted later in 2022, when distribution was slowing down (BPOM, 30 September 2022; BPOM, 21 November 2022).[14] None of the three has been listed in the Emergency Use Listing (EUL) of the WHO, though Indovac applied for it in September 2022 (Bio Farma, 13 September 2022); no announcement on a determination had been made as of February 2023. All 13 types of vaccines have been confirmed by the MoH through Decrees (in December 2020,[15] June 2021,[16] and later in 2022 for the three locally developed vaccines). Deputy Minister of Health Dante Saksono Harbuwono said, "We expect that domestic vaccines will spearhead booster vaccination so that we will become self-resilient and will not be

[13] This information comes from various press releases of the BPOM, which typically issues press releases for each vaccine. Therefore, this calculation is based on the tracking of various press releases for each vaccine.

[14] Indovac and AWcorna were granted EUAs on 24 September 2022 (BPOM, 30 September 2022). Inavac was granted an EUA on 17 November 2022 (BPOM, 21 November 2022).

dependent on other countries" (P.G. Bhwana, 23 October 2022).

According to the BPOM, when reviewing the EUA application and conducting a full clinical trial, the BPOM obtains assistance from the National Committee on Drugs and Vaccines for COVID-19, the Indonesia Technical Advisory Group on Immunization (ITAGI), and the association of clinicians (BPOM, 17 November 2021).

**Table 5: List of vaccines granted emergency use authorisation (EUA)**

| Vaccine | Country origin and production | Primary/booster, doses | Key technological feature |
|---|---|---|---|
| 1 Sinovac | China<br>Sinovac BioTech | Primary (2 doses) | Inactivated Sars-CoV-2 |
| 2 AstraZeneca | US, UK, India<br>AstraZeneca - Oxford University - Serum Institute of India (SII): SK Bioscience Co. Ltd., Korea (COVAX Facility)<br>Siam BioScience Thailand | Primary (2 doses) & booster, homologous<br>Ages 18+ | Non-replicating viral vector (ChAdOx 1). |
| 3 Sinopharm | China<br>Beijing Institute of Biological Product (BIBP) | Primary (2 doses) & booster, heterologous<br>Ages 18+ | Inactivated Sars-CoV-2 |
| 4 Moderna | US<br>AS Moderna Inc<br>COVAX facility | Primary (2 doses) & booster, heterologous<br>Ages 18+ | Messenger RNA (mRNA) |
| 5 Pfizer | US<br>BioNTech & Pfizer | Primary (2 doses) & booster, homologous<br>Ages 18+ | Messenger RNA (mRNA) |
| 6 Covavax | India<br>Novavax, Serum Institute of India Pvt. Ltd., India (SII) | Primary (2 doses)<br>Ages 18+ | Recombinant glikoprotein, adjuvant Matrix-M1 |
| 7 Sputnik V (Gam-COVID-Vac) | Rusia<br>Gamaleya Research Institute of Epidemiology and Microbiology<br>PT Pratapa Nirmala | Primary (2 doses)<br>Ages 18+ | Non-replicating viral vector, adenovirus (Ad26-S dan Ad5-S) |
| 8 Johnson & Johnson (Janssen COVID-19 Vaccine) | US<br>Janssen Pharmaceutical Companies | Primary (1 dose) & booster, heterologous (primary to Sinovac and Sinopharm)<br>Ages 18+ | Non-replicating viral vector, adenovirus (Ad26) |
| 9 Convidencia | China<br>CanSino Biological Inc., Beijing Institute of Biotechnology | Primary (2 doses) | Non-replicating viral vector, adenovirus (Ad5) |
| 10 Zifivax | China<br>Anhui Zhifei Longcom Biopharmaceutical, PT Jakarta Biopharmaceutical Industry (JBio). | Primary (3 doses) & booster, heterologous (primary to Sinovac and Sinopharm)<br>Ages 18+ | Recombinant protein sub-unit |
| 11 Indovac | Indonesia, US<br>PT Bio Farma, Baylor College of Medicine, USA | Primary (2 doses) & booster, homologous<br>Ages 18+ | Active substance Receptor-Binding Domain (RBD) recombinant of protein S |
| 12 AWcorna | Indonesia, China<br>PT Etana Biotechnologies Indonesia, Abogen-Yuxi Walvax, China | Primary (2 doses)<br>Ages 18+ | Messenger RNA (mRNA) |
| 13 Inavac | Indonesia<br>Airlangga University of Surabaya with PT Biotis Pharmaceuticals Indonesia (PT Biotis) in Bogor | Primary (2 doses) & booster, heterologous<br>Ages 18+ | Inactivated virus |

*Source: Press Releases of the BPOM in various dates*

[15] KMK Nr. 12758 of 2020 on Vaccine Type Determination for COVID-19 Vaccination Program included seven producers (PT Bio Farma, AstraZeneca, China National Pharmaceutical Group Corporation (Sinopharm), Moderna, Novavax Inc, Pfizer Inc. and BioNTech, dan Sinovac).

[16] KMK Nr. 4776 of 2021 on Vaccine Type Determination for COVID-19 Vaccination Program added three, bringing the total to 10 producers (CanSino Biologics, Genexine, Johnson and Johnson).

The list above shows that Indonesia opened its vaccine market fairly wide. Four of the vaccines it uses are made by or have cooperation with American companies, five are made by or have cooperation with Chinese companies, three are made by or have cooperation with European companies, and two are made by or have cooperation with Indian companies. The vaccines made in China were the most used. The reason for this seems to have been the willingness of China's vaccine producers to transfer the technology and join production with an Indonesian entity, especially Bio Farma (Suwanti, 30 September 2020; A.M. Pratama, 28 August 2020; Satgas COVID-19, 31 May 2021).

Aside from relying on international supply, Indonesia also succeeded in producing vaccines: Indovac, AWcorna, and Inavac. As a state-owned pharmaceutical holding company, Bio Farma was established in 1890 and has produced a number of vaccines. The BPOM assisted domestic pharmaceutical companies such as PT Bio Farma, PT Biotis, PT Etana, and PT JBio through regulatory assistance, training, and technical guidance on compliance with good manufacturing practices to meet international standards for vaccine production (BPOM, 10 January 2022).

Bio Farma and BPOM efforts and commitment first resulted in the declaration that Indonesia had developed IndoVac. This vaccine was developed over the past two years by Bio Farma, and launched by President Widodo on 13 October 2022, when he used it to get his first booster (Setkab, 13 October 2022). In developing the vaccine, Bio Farma claimed to have brought seven schools of medicine into the country,[17] in partnership with Baylor College of Medicine, in the US. IndoVac is claimed to be locally developed and produced, from drug substance to drug product (Baasyir, 2022). IndoVac contains the active substance Receptor-Binding Domain (RBD) recombinant of protein S of the SARS-Cov-2 virus.

Since obtaining an EUA on 28 September 2022, IndoVac has been in the process of obtaining a booster vaccination licence from its clinical trial. At the same time, Bio Farma is also in the process of registering IndoVac for an emergency use listing (EUL) from the WHO, to enable it to be exported, especially to lower-middle-income countries (BPOM, 30 September 2022). To gain public confidence, IndoVac was used as the second booster dose for President Widodo on 22 November 2022 (D.N. Lidya, N. Ihsan, 24 November 2022).

The BPOM also issued an EUA for the AWcorna vaccine, which was locally developed by a private entity, PT Etana Biotechnologies Indonesia (PT Etana), in partnership with China's Abogen-Yuxi Walvax. According to the BPOM, the efficacy of the AWcorna vaccine against the wild type of virus that has not mutated is 83.58%, while the efficacy of the AWcorna vaccine against the Omicron variant is 71.17% in preventing moderate cases.

[17] These were: Universitas Indonesia, Universitas Diponegoro, Universitas Andalas, Universitas Hasanuddin, Universitas Padjadjaran, Universitas Udayana, and Universitas Gadjah Mada.



With these two locally developed vaccines — one with a US-based institution, and another one with a China-based company — the Chief of the BPOM, Penny S. Lukito, said she was convinced that the target of being locally self-reliant on the pharmaceutical sector had been on the right track all along by pursuing the transfer of technology (BPOM, 30 September 2022).

In addition, the BPOM also granted emergency use authorisation to another "*Merah Putih*" (i.e., Indonesian) vaccine, Inavac, which is based on the inactivated virus and as of 1 November 2022 can be used for adults above 18 years old (A.A.N. Hidayat, 4 November 2022). Inavac was developed by Airlangga University of Surabaya (East Java), in collaboration with PT Biotis Pharmaceuticals Indonesia (PT Biotis) in Bogor. Inavac has been wholly developed from the domestic partnership of the university and the pharmaceutical company.

According to Minister of Health Budi Gunadi Sadikin, the reason Indonesia could be successful in domestically developing a vaccine is that there are 17 genome labs throughout Indonesia that can intel 6,000-8,000 genomes a month (F.H. Harsono, 7 January 2023). Having such facilities strengthens the country's ability to conduct surveillance on variants of viruses that enter the country and, coupled with the experience of developing other vaccines, makes Indonesia fairly responsive in this regard.

## 4.2. On vaccine transparency and accountability

As indicated earlier, the procurement of the vaccine was conducted in a diplomatic effort led by the Ministry of Foreign Affairs and supported by government agencies. However, this "diplomacy", and the reasoning behind securing some vaccine producers and not others, are shrouded in almost complete darkness. Only information on why, for example, vaccines made in China make up the lion's share of what has been secured is in the public domain. Financial information on the procurements, such as cost, is not published. Only once, in August 2020, one of the cabinet members mentioned prices (A.M. Pratama, 28 August 2020) — that the raw substance of Sinovac was USD8 per dose in 2020 and decreased to USD6-7 in 2021. However, as it was only an oral statement quoted by the press, it is hard to verify.

The lack of transparency on the financial aspect of the vaccine procurement is consistent with the approach taken by the Perpu Nr. 1 of 2020, the legal basis for most of Indonesia's efforts to handle the pandemic. The Perpu Nr. 1 of 2020 stipulates, for instance, that costs incurred by government agencies are "state spending", whereas vaccine procurement and vaccination is part of the economic cost of salvaging the economy from the crisis and therefore not the country's loss (Article 27, clause (1)). Furthermore, the Perpu stipulates that government agents and members of committees outlined in this Perpu cannot be prosecuted under either civil or criminal law if carrying out their tasks in good faith and in accordance with the provisions of laws and regulations (Article 27, clause (2)), and it exempts all actions and decisions taken based on the Perpu from the object of a lawsuit that can be submitted to a state administrative court (Article 27, clause (3)).

Another issue that has become a concern to CSOs is the private-entity collaboration vaccination. It is believed there are rent-seeking motives (E. Primayogha, 13 July 2021; I. Hidayana, personal communication, 1 December 2022; A. Arif, personal communication, 18 February 2023). For CSOs, the scheme raised the issue of which vaccine would be distributed through this commercial mechanism given the government's initial commitment to procure all the vaccines with the state budget. This tension was reflected in the changing of the contents of the MoH regulation (PMK Nr. 10 of 2021) up to three times in a relatively short period of time.

Despite the lack of transparency in vaccine procurement, and the blanket immunity from potential legal actions provided by the Perpu, some degree of accountability could still be provided by the State Finance Law[18] and the Supreme Audit Agency (BPK) Law.[19] These two laws might still be able to shed some light on the vaccine procurement and the vaccination programs through the presentation in the consolidated Government Annual Financial Statement (LKPP) and its subsequent BPK audit report. The case of vaccine procurement and taxation facilities for importing them already appeared in LKPP 2020 (audited) and LKPP 2021 (audited). LKPP 2022 will be finished by February 2023, to be audited by the BPK in 2023. The same goes for Bio Farma procurement and vaccine research and development; as a state-owned company, it will be audited by the BPK this year.

[18] Law Nr. 17 of 2003 on State Finance Law (UU Nr. 17 of 2003).

[19] Law Nr. 15 of 2006 on Supreme Audit Agency or BPK (UU Nr. 15 of 2006).



# PART V: CONCLUSION

Indonesia achieved a high vaccination rate, reaching 74% of the population with two doses. However, given the character of the pandemic and the current cases, vaccination equity needs to be increased. The government-dominated initiatives to implement vaccination programmes may be somewhat efficient, but given that the government has not met its target of 85% of the population vaccinated, adjustments such as involving more non-government agents are needed. Likewise, donor countries should consider delivering their vaccines and medical equipment not only to the government, but also to capable civil society groups or universities.

In the past two years, the Government of Indonesia has adjusted its policy to increase vaccine equity, including measures that push the urban population to get vaccinated to enable them to take aeroplanes and trains and enter malls and buildings. Such measures are commendable for increasing the vaccinated urban population, but they leave the rural population susceptible to the disease.

Based on the government's vaccine procurement data, the Chinese vaccine Sinovac makes up almost 50% of all vaccines procured in 2021, the first year of the vaccination programs (Table 4). With Sinopharm included, the number of vaccines from China exceeds 50%. It is worth examining the conditions leading to this, such as that China's Sinovac was willing to transfer knowledge to and engage in joint production with Indonesia's Bio Farma. This study has not been able to fully examine the issue, as no one from the respective offices and state-owned companies is willing to talk about it.

The development of three locally developed and produced vaccines in Indonesia so far is impressive. It supports the country's ambition to be self-reliant and not overly dependent on foreign countries' vaccine production. Although the locally produced vaccines came to the market quite late, their market share will certainly change going forward. Indonesia has been helped by companies in the country that have invested in the field for quite some time, some universities that have also developed expertise and research and development facilities, and the existence of 17 genome labs that can intel 6,000 to 8,000 genomes a month.

Having a state-owned company like Bio Farma, which has built its ability to do research and development on vaccines, and which also does commercial deals on vaccines, drugs, and medicines, has helped the big procurement in a relatively short period of time. The public information on vaccination programmes from the MoH and the Satgas is valuable for public monitoring and learning, and can be considered as good practice, as it is quite detailed and regularly updated.

With COVID-19 declared to have endemic status on 22 December 2022, a retrospective accountability measure might need to be performed, looking at the past two and a half years' practices of vaccine procurement and the vaccination

programmes. As legal accountability has been put aside by the Perpu 1 of 2020, non-legal accountability measures need to be taken up. The BPK audit report over the government financial report, the LKPP, needs to be disclosed for public examination, for instance. Other reviews for such vast and colossal efforts will also retain their relevance for learning, if not for social accountability.



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# BREAK THE BLACK BOX:

## Issues in the Use of Chinese Vaccines in the Philippines

JOHN NERY

# PART I: INTRODUCTION

Under the populist President Rodrigo Duterte, the initial response of the Philippines to the COVID-19 emergency can be summed up, fairly, as "spectacular failures, mismanaged pandemic" (Arguelles, 2021). However, despite falling just short of the mid-2022 deadline set by the World Health Organization (WHO) for vaccinating 70% of the target population, the Philippines rolled out a vaccination program under Duterte (March 2021 to June 2022), continued under his successor President Ferdinand Marcos Jr (since July 2022), which can be considered, altogether, as a qualified success. "I would say a partial success or a partial victory", health reform advocate Dr Anthony Leachon said, "because we could have done better in terms of our response through agile leadership" (A. Leachon, personal communication, 21 February 2023). In spite of this partial success, however, the Philippine government's handling of Chinese-made vaccines proved deeply problematic.

## 1.1. State and trends of COVID-19 and vaccination in the Philippines

From 2020 to 2022, the Philippines experienced four COVID-19 waves. Each was worse than the previous one — until the fourth one, when vaccinations reached a critical mass. Different indicators could be used to trace the trajectory of the COVID-19 pandemic and measure the impact of vaccination in the Philippines. One is the number of new cases per day, which clearly reflects the four surges, with each succeeding wave reaching higher peaks than the previous one. A second is the number of deaths per day, which shows not only the deadly consequences of infection but, beginning with the fourth wave, the real benefits of vaccination. Table 1 tracks the daily peak of those two indicators for each wave.

**Table 1: COVID-19 waves and the impact of vaccination**

| | Peak daily cases | Peak daily deaths |
|---|---|---|
| Initial wave (July-October 2020) | 3,352 | 93 |
| Alpha/Beta wave (March-June 2021) | 10,978 | 181 |
| Delta wave (August-November 2021) | 20,668 | 364 |
| Omicron wave (January-March 2022) | 35,594 | 151 |

*Source: Terminal Report, Task Force T3, based on DOH data*

What explains the drastic fall in peak deaths in the last surge? When the fourth wave started in January 2022, the Philippines had already fully vaccinated 61% of its target population.[1] Vaccination works; it saves lives. As of 14 February 2023, Department of Health (DOH) data showed that the Philippines had recorded a total of 4,074,821 COVID-19 cases, with a death toll of 65,968. The fatality rate for those infected was 1.6% — higher than the global average of 1%, but down from the country's 1.8% at the start of 2022 and 1.9% at the start of 2021.[2]

### 1.1.1. Vaccine policy

The Philippine National Deployment and Vaccination Plan for COVID-19 Vaccines[3] lays out the road map for the national vaccination program. The plan, codified in DOH Administrative Order 2021-0005 dated 12 January 2021, was the work of many government offices, with important inputs from civil society and the business community (Department of Health [DOH], 2021a).

The program was launched officially on 1 March 2021 — just one day after the first batch of COVID-19 vaccines, some 600,000 doses of Sinovac, arrived in the Philippines from China. Four features characterize the conduct of the still-ongoing program.

***(A) The vaccines were procured through a portfolio approach.*** Recommended by business community representatives as a necessary risk-mitigation strategy to diversify the country's possible sources of vaccines, the approach recognized that "there is a very limited global supply of vaccines where every country in the world is seeking to gain access to vaccines and where 80% of available supply has already been taken by the richest countries" (DOH, 2021a). The portfolio approach managed the uncertainty of vaccine supply by simultaneously negotiating with different suppliers, even as the government worked closely with the WHO to receive a considerable volume of vaccines through the COVAX facility. "The reality of the situation called for us to be pragmatic", said a health industry executive (P. Borromeo, personal communication, 5 January 2023). Guillermo Luz, chief resilience officer at the Philippine Disaster Resilience Foundation, said the portfolio approach was like "playing the numbers". He said: "We opted for a portfolio approach so that we wouldn't be caught short and at least we had assumed that by going to a portfolio, we'll have not only different supply but different delivery schedules, depending on the vaccine" (G. Luz, personal communication, 28 December 2022). Philippine participation in the COVAX facility was an essential component of the country's portfolio approach. Classified among the Advance Market Commitment countries, the Philippines received 74,228,930 doses from COVAX between 2021 and 21 December 2022. As a result of its arrangements, in 2021, the first year of the rollout, the Philippines was able to procure an adequate supply of vaccines from seven different manufacturers.[4]

***(B) The rollout was based on a set of priority groups selected by the national government.*** The prioritization framework was designed to meet three objectives: reduce mortality and preserve the country's health system capacity; stem the transmission of the coronavirus and minimize disruption to social and economic activity; and prepare for the return to normalcy. It identified a total of 12 categories of eligible individuals (see Table 2). The highly stratified scheme proved "complicated" and even at times "confusing" during the rollout (M. Torres, personal communication, 28 December 2022), but it also achieved the protective coverage (complete doses) of some of the most vulnerable sectors, including health care workers (100%) and senior citizens (79.47% of target population as of 6 February 2023) (DOH, 2023a).

**Table 2: Priority groups for vaccination**

| | | |
|---|---|---|
| A1 Frontline health workers | B1 Teachers and school workers | C Rest of the population not otherwise included |
| A2 Senior citizens | B2 All government workers | |
| A3 People with co-morbidities | B3 Essential workers | |
| A4 Other frontliners | B4 Groups with higher risk (PWDs, *et al*) | |
| A5 Indigent population | B5 Overseas Filipino Workers (OFWs) | |
| | B6 Other remaining workers | |

*Source: DOH Department Memorandum 2021-0099, dated 23 February 2021, revising the original categories listed in the Philippine National Deployment and Vaccination Plan for COVID-19. For further discussion, see 3.1. Priority Groups, below.*

***(C) The vaccines were administered mainly through various local governments,*** at the provincial, city or municipality, and barangay[5] levels. The private sector companies that had purchased vaccines in a tripartite arrangement with the national government and pharmaceutical manufacturers also played a key role, but local governments had "an absolutely critical role" in the vaccination program. The rollout was "so dependent on [local governments]" (G. Luz, personal communication, 28 December 2022). As of 12 February 2023, the Philippines had administered 166,344,295 doses — mostly through local governments.

[1] Defined, by the national government using the WHO's lowered standard, as 70% of the total population. The estimate of 61% is from the Task Force T3 Terminal Report, based on DOH data.

[2] The statistical breakdown by political regions, however, shows some cities or provinces with disturbingly high fatality rates, as high as 4.8% in Cebu province, or even 5.1% in Aurora province.

[3] Available as a resource for local governments on the DOH website, at https://doh.gov.ph/sites/default/files/basic-page/The%20Philippine%20National%20COVID-19%20Vaccination%20Deployment%20Plan.pdf.

[4] In order of date of first delivery: Sinovac, AstraZeneca, Sputnik, Pfizer, Moderna, Janssen, and Sinopharm.

[5] The latest update from the Philippine Statistics Authority, dated 8 November 2022, set the number of provinces at 82, the number of cities at 147, the number of municipalities at 1,487, and the number of barangays at 42,047.

***(D) The vaccination program relied on communications support from both the government and the private sector.*** Massive and coordinated information programs conducted by the government and the private sector educated the public about COVID-19 vaccination, addressed the challenge of vaccine hesitancy, and significantly shaped public opinion. The issue of information accessibility is discussed in greater detail in Chapter 2, below.

### 1.1.2. Available vaccines

In 2021, 12 vaccines received emergency use authorization (EUA) from the Philippine Food and Drug Administration (FDA) (see Table 3).

**Table 3: Vaccines granted EUA by the Philippine FDA**

| Vaccine | Date of EUA | Headquarters of manufacturer |
|---|---|---|
| Pfizer-BioNTech/Comirnaty COVID-19 mRNA Vaccine (nucleoside modified); hereafter, Pfizer | 14 Jan 2021 | US; vaccines tested for EUA supplied from Belgium |
| ChAdOx1-S[recombinant] VAXZEVRIA (COVID-19 Vaccine AstraZeneca); hereafter, AstraZeneca | 28 Jan 2021 | UK; vaccines tested for EUA supplied from South Korea, Thailand, Italy |
| SARS-CoV-2 Vaccine (VeroCell), Inactivated [CoronaVac] (Sinovac); hereafter Sinovac | 22 Feb 2021 | China |
| Sputnik V Gam-COVID-Vac; hereafter, Sputnik V | 19 Mar 2021 | Russia |
| Janssen COVID-19 Vaccine (Ad26.COV2-S (recombinant)); hereafter, Janssen | 19 Apr 2021 | Belgium |
| COVID-19 mRNA Vaccine (nucleoside modified) [COVID-19 Vaccine Moderna]; hereafter, Moderna | 5 May 2021 | US; vaccines tested for EUA supplied from Spain |
| Whole Virion, Inactivated Corona Virus Vaccine [Covaxin] | 21 Jun 2021 | India |
| COVID-19 Vaccine (VeroCell), Inactivated [COVID-19 Vaccine Sinopharm (Wuhan)]; hereafter, Sinopharm | 19 Aug 2021 | China |
| Sputnik Light COVID-19 Vaccine; hereafter, Sputnik Light | 20 Aug 2021 | Russia |
| COVID-19 Vaccine (VeroCell), Inactivated [COVID-19 Vaccine Sinopharm (Beijing)]; hereafter, Sinopharm | 10 Sep 2021 | China |
| COVID-19 Vaccine (VeroCell), Inactivated [COVID-19 Vaccine Sinopharm (Hayat-Vax)]; hereafter, Sinopharm | 7 Oct 2021 | China |
| SARS-CoV-2 rS Protein Nanoparticle Vaccine [Covovax] | 17 Nov 2021 | India |

*Sources: Philippine Food and Drug Administration (https://www.fda.gov.ph/list-of-fda-issued-emergency-use-authorization/); DOH FAQs (https://doh.gov.ph/vaccines/know-your-vaccines).*

The government settled on seven vaccines in its portfolio approach. The two from India fell through for different reasons; the two from Russia needed to be reconfigured from a two-dose to a single-dose vaccine;[6] the three variants of Sinopharm were treated as one in the government's tabulation. In general, negotiations for all non-Chinese vaccines involved the participation of the private sector, but the negotiations for the Chinese vaccines were limited to top government officials. Table 4 lists the vaccines with initial number of doses and date of first delivery to the Philippines.

**Table 4: First deliveries per vaccine**

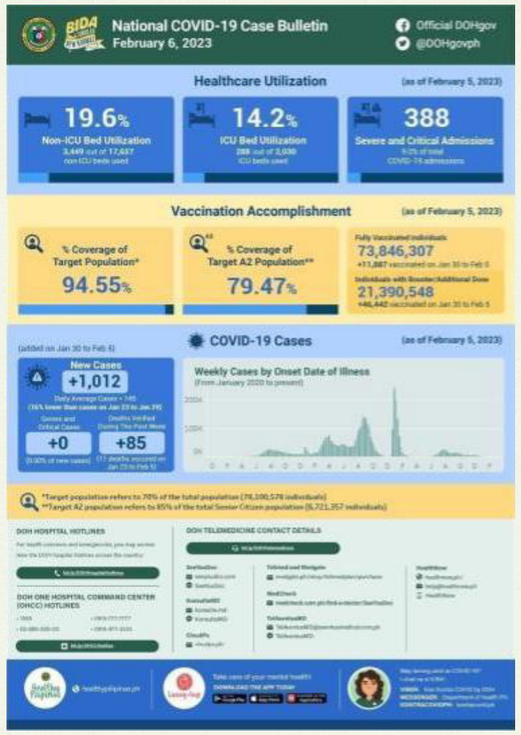
| Vaccine | Number of doses in first batch (estimated) | Date of first delivery |
|---|---|---|
| Sinovac | 600,000 | 28 Feb 2021 |
| AstraZeneca | 487,200 | 4 Mar 2021 |
| Sputnik V | 15,000 | 1 May 2021 |
| Pfizer | 193,050 | 10 May 2021 |
| Moderna | 249,600 | 27 Jun 2021 |
| Janssen | 1,606,000 | 16 Jul 2021 |
| Sinopharm | 100,000 | 11 Aug 2021 |

*Source: Various newspapers*

By 21 December 2022, COVAX recorded that the Philippines had accumulated a total of 251,342,200 doses. Almost 30% of those were donated through the COVAX facility.

[6] The reconfiguration was needed because it was "a complicated vaccine to administer [...] unlike all vaccines, when you have the two doses, first and second dose were identical formulations. In Sputnik, the first dose and the second dose had slightly different formulations, so they were distinguished as a red cap and a blue cap, so you can't take two blues or two reds. You know you gotta take one of each." (G. Luz, personal communication, 28 December 2022).

**Figure 1: The government's weekly case bulletin**




*Source: 6 February 2023 Case Bulletin, DOH*

According to the 6 February 2023 case bulletin (Figure 1) of the DOH, 73,846,307 individuals had been fully vaccinated (either through two-dose vaccines like AstraZeneca or single-dose vaccines like Janssen or the reformulated Sputnik Light). This total is equivalent to 94.55% of the target population. Including first, second, and booster doses;  the total number administered by the Philippine vaccination program, as recorded by DOH, was 166,344,295 as of 12 February 2023 (DOH, 2021b).

The portfolio approach to vaccine procurement was a success in ensuring mass vaccinations, but it led to an oversupply of doses by the end of 2022. The total number of unused doses may reach over 50 million; the Philippine Senate is investigating why at least 44 million doses expired before they could be used (Africa, 2022).

Those involved in the design of the vaccine procurement plan defend the portfolio approach, however, arguing that oversupply of vaccines is a positive outcome, considering the initial uncertainty, in late 2020 and the first half of 2021, over whether the Philippines would have a sufficient supply. "Because one thing with vaccines and immunity in general, if we don't get up to a high number, you know that herd immunity number, if you vaccinate too few, you still have the risk of spread", said Luz, who spearheaded Task Force T3.[7] "So we have to go big, go large" (G. Luz, personal communication, 28 December 2022).



Addressing late 2021 purchase orders for Chinese vaccines, which were still coming in the tens of millions of doses despite delivery commitments already signaling a sufficiency in supply, AC Health's Paolo Borromeo said, "We could have scaled back on the Chinese vaccines" (P. Borromeo, personal communication, 5 January 2023).

## 1.2. Research methodology

This research relied on key informant interviews with private sector and government actors (Table 5), but its timing (late 2022 and early 2023) coincided with the Senate investigation; national government officials approached for this report consequently declined to be interviewed. In the words of one official: "we have been advised to recuse while there is still a Senate investigation ongoing" (Name withheld on request, personal communication, 5 January 2023).

Task Force T3's comprehensive Terminal Report (Dayrit *et al*, 2022) was a crucial resource in the research; it documented the different aspects of the task force's work, which began well before and included far more than the vaccination rollout. The research also relied on a close study of both raw and aggregated data collected by the DOH, the Philippine FDA, and the COVAX facility — and it was supplemented by a reading of recent related academic literature and relevant government documents. The UN Development Programme-commissioned study on health communication in the Philippines (Ligot *et al*, 2021) also proved useful.

**Table 5: Key informants interviewed**

| Name | Occupation | Affiliation | Date of interview | Method of interview |
|---|---|---|---|---|
| Paolo Borromeo | Health industry executive | AC Health; Task Force T3 | 5 Jan 2023 | Recorded Zoom |
| Beverly Ho | Lead, DOH communications | DOH | 8 Feb 2023 | Recorded Zoom, with follow-up on Viber |
| Anthony Leachon | Health reform advocate | Past president, Philippine College of Physicians | 21 Feb 2023 | Recorded Zoom |
| Dominic Ligot | Data scientist | CirroLytix Research Services; lead author, NEDA/WHO study | 23 Feb 2023 | Recorded Zoom |

[7] Task Force T3 was an initiative of the Philippine business community in response to the pandemic. It was formed to organize a community feeding program that, according to its own Terminal Report, served 14.3 million persons during the first lockdown, in March to April 2020. It was then invited by the government to coordinate with the Inter-Agency Task Force for the Management of Emerging Infectious Diseases as the representative of the private sector. By all accounts, including those of government officials, Task Force T3 played a crucial role in helping procure the vaccines and then in distributing them.

| | | | | |
|---|---|---|---|---|
| Guillermo Luz | Business community liaison | Philippine Disaster Resilience Foundation; Task Force T3 | 28 Dec 2022 | Recorded Zoom |
| Margot Torres | Marketing executive | McDonald's; Task Force T3 | 28 Dec 2022 | Recorded Zoom |
| Jerry Treñas | City mayor | Iloilo City | 16 Jan 2023 | Recorded Zoom |
| Name withheld upon request | Government official | National government | 5 Jan 2023 | Viber message |



# PART II: ON INFORMATION ACCESSIBILITY

Public access to information about vaccines was hampered by a self-inflicted wound; after taking office in 2016, the Duterte government was confronted with a controversy over an earlier drug. Dengvaxia, a Sanofi drug, was the first dengue vaccine approved for use; over 800,000 Filipino children had been inoculated with it by November 2017, when Sanofi announced that the vaccine increased the risk of serious dengue for seronegative individuals (Mendoza *et a*l, 2021). The Dengvaxia controversy, fanned into a long-running primetime scandal by government officials, inevitably had an impact on COVID-19 vaccine acceptance.

In May 2021, the Social Weather Stations survey organization conducted a nationwide survey on public attitudes about vaccination. The results were worrying: 33% of respondents said they were unwilling to be vaccinated (26% who "will surely not get it" and 7% who "will probably not get it"), while 35% said they were uncertain (Social Weather Stations, 2021). Social Weather Stations conducted three more surveys in 2021, with increasingly vaccine-positive results (see Table 6). In June, at the tail end of the second wave, the number of unwilling was down to 21%, and the number of uncertain to 24%. In September, in the middle of the third wave, the number of unwilling dropped further, to 18%, as did the number of uncertain, to 19%. In December, the numbers dropped to single digits: only 8% unwilling and 6% uncertain (Social Weather Stations, 2021). Altogether, these four Social Weather Stations surveys in 2021 tracked the decline in vaccine hesitancy, and were used as a measure of success by both the government and the private sector communication campaigns. In particular, both campaigns saw the surveys as measuring the impact of information on vaccine hesitancy.

**Table 6: Dramatic drop in vaccine hesitancy, in 2021**

| May 2021 | June 2021 | September 2021 | December 2021 | |
|---|---|---|---|---|
| 26% | 18% | 14% | 7% | Will surely not get vaccinated |
| 7% | 3% | 4% | 1% | Will probably not get vaccinated |
| 35% | 24% | 19% | 6% | Uncertain about getting vaccinated |
| 9% | 9% | 6% | 3% | Will probably get vaccinated |
| 23% | 36% | 23% | 33% | Will surely get vaccinated |
| N/A | 7% | 10% | 13% | Vaccinated with one dose |
| N/A | 3% | 25% | 38% | Vaccinated with two doses |

*Source: Social Weather Stations (www.sws.org.ph)*

## 2.1. Online portal

The official website of the DOH serves as the online portal for pandemic response,[8] with several sub-sites. Table 7 summarizes the categories of COVID-19 case, vaccination, and policy information available from the DOH and the FDA.[9] All COVID-19 case and vaccination data is channelled through the DOH but, as this matrix shows, the information is shared in different ways, with varying levels of availability. The dates of data released also vary, even within the DOH website.

**Table 7: Information matrix of online sources**

| Information need | Website | Sub-site | Feature |
|---|---|---|---|
| COVID-19 cases | doh.gov.ph | https://doh.gov.ph/covid19tracker | Interactive |
| COVID-19 deaths | doh.gov.ph | https://doh.gov.ph/covid19tracker | Interactive |
| COVID-19 case bulletin | doh.gov.ph | https://doh.gov.ph/bulletin | Infographic format |
| COVID-19 policies | doh.gov.ph | https://doh.gov.ph/COVID-19-policies | Reverse chronological order |
| COVID-19 vaccination: doses | doh.gov.ph | https://doh.gov.ph/vaccines | Dashboard (part 1) |
| COVID-19 vaccination: doses, local | doh.gov.ph | https://doh.gov.ph/vaccines | Dashboard (part 2) |
| COVID-19 vaccination: priority groups | doh.gov.ph | https://doh.gov.ph/vaccines | Dashboard (part 3) |
| COVID-19 vaccines | doh.gov.ph | https://doh.gov.ph/vaccines/know-your-vaccines | FAQs; infographics (but only eight vaccines) |
| COVID-19 vaccines with EUA | fda.gov.ph | https://www.fda.gov.ph/list-of-fda-issued-emergency-use-authorization/ | Detailed medical and technical information; nine brands, total 12 vaccines |
| COVID-19 drugs with EUA | fda.gov.ph | https://www.fda.gov.ph/list-of-fda-issued-emergency-use-authorization/ | Detailed medical and technical information; three drugs |
| COVID-19 updates | fda.gov.ph | https://www.fda.gov.ph/fda-covid-19-updates/ | Reverse chronological order |
| COVID-19 vaccination: doses | fda.gov.ph | https://www.fda.gov.ph/list-of-fda-issued-emergency-use-authorization/ | Summary at bottom of page |
| COVID-19 vaccine adverse reactions | fda.gov.ph | https://www.fda.gov.ph/list-of-fda-issued-emergency-use-authorization/ | Periodic reports; downloadable as PDF |
| COVID-19 vaccination: doses per brand | fda.gov.ph | https://www.fda.gov.ph/list-of-fda-issued-emergency-use-authorization/ | Periodic report Table 2 has per-brand dose data; only seven vaccines |

*Source: Official websites of the DOH and the Food and Drug Administration.*

Two DOH sub-sites are specific to vaccines. The first hosts the COVID-19 Vaccination Dashboard,[10] which summarizes the total number of vaccine doses administered and offers three types of statistical breakdown: by type of dose (first, second, or booster); by political or administrative region; and by priority group. However, there is no information, whether aggregated or disaggregated, on dose administration per vaccine brand. Helpful infographics on the first eight vaccines approved for emergency use are posted, designed for easy reading and easier sharing. As of 15 February 2023, however, the inventory has not been updated to reflect the other vaccines that have since been approved. The second sub-site is only a set of irregularly updated lists of vaccination sites, on Excel worksheets.[11]

The DOH website is the main portal, but it does not include all important information regarding vaccines. The main source for information on vaccines and drugs, including approval status and product details, is the Philippine FDA website. The DOH website (the entire site, not just the COVID-19 sub-sites) has seen increased traffic during the pandemic: on December 2022, it recorded 2.3 million visits, up from 1.9 million visits the previous month, with each visit averaging almost 16 minutes — multiples of what established news websites generate.

The DOH has an active presence on social media too. On Facebook, it has 8.4 million followers; on Facebook Messenger, 5.8 million likes; on the Viber chat app, 1.8 million subscribers (compared to one million subscribers to the WHO Viber channel); and on Twitter, over 757,000 followers. On the more video-based platforms, the Department has a modest-sized footprint: over 71,000 subscribers for its YouTube channel; and over 63,000 followers on TikTok. On LinkedIn, the Department has almost 14,000 followers.[13]

These numbers suggest that while the platforms where the DOH is present allow for sharing of video, the majority of its audience remains highly text-oriented. In this sense, the DOH portal's use of text-based infographics (such as the now-weekly case

[8] http://doh.gov.ph
[9] https://fda.gov.ph

[11] https://doh.gov.ph/COVID-19-vaccination-sites

[12] https://www.semrush.com/website/doh.gov.ph/overview/

[13] Data, retrieved from the respective social media channels of the DOH, are as of 15 February 2023.

bulletins and the vaccine brand FAQs) is conducive to the reading and sharing of detailed information that individuals might be looking for in the middle of a pandemic. While a lot of information is accessible on the DOH website, and some of the interactive features allow site visitors to customize the information they would like to see, the website does not contain any information on the procurement cost of the vaccines or classify the vaccines according to how they were procured.

## 2.2. Information campaigns

The communications response to the pandemic would have been inadequate, and information about vaccines accessed less, if the national government had adopted only a pull strategy. Even sub-sites such as the COVID-19 Tracker, which allows site users to interact with data, would not have been sufficient to attract people. Both the government and the private sector conducted massive information programs, initially separately and then in coordination. At first, they separately encouraged vigilance and the adoption of public health protocols amid great uncertainty; later, they worked together to encourage vaccination as the primary solution; and finally, in coordination, they encouraged responsible attitudes for living with the coronavirus. These push strategies helped redefine public attitudes about the pandemic and the value of vaccination.

"That's the first breakthrough for us. It's recognizing that when we do market segmentation, there's room for two parallel campaigns to go", DOH Undersecretary Beverly Ho said, referring to the different audiences targeted by the private sector campaign and by the government's own communications campaign, which she led. "It was so clear to us that the demographics that they [the private sector] want to reach is not the demographic that is typically who the government needs to reach. And always, naturally, the DOH campaign will veer towards the bottom 60% of the population" (B. Ho, personal communication, 8 February 2023). Margot Torres, who joined Task Force T3 to head the communications side, said the same thing: "The DOH, their focus is the masses [...] For the private sector, we talked to the AB Broad C" (i.e., A, B, and C) (M. Torres, personal communication, 28 December 2022).[14]

Despite missed opportunities in the first phase, and some shortcomings in implementation, the two information programs proved to be successful, and they may be useful and applicable in other situations. Of note, the true value of the communication campaigns may have been obscured by Duterte's late-night rants on television, which created the impression that the national pandemic response was *ad hoc*, unscientific, and political (Hapal, 2021). Figure 2 gives an overview of the simultaneous, multi-phase campaigns conducted by the national government (the green, orange, and blue icons) and the business community (the purple icons) over the course of the pandemic.

**Figure 2: Parallel information campaigns by government and private sector**


*Source: Ingat Angat Bakuna Lahat Final Report*

A new law which took effect a year before the pandemic started, the Universal Health Care Act, required the upgrading of the DOH's Health Promotion and Communication Service to a Health Promotion Bureau. The timing of this restructuring, which included a bigger budget for health promotion that was guaranteed by law, coincided with the pandemic.

Led by the new Health Promotion Bureau, the government launched its BIDA (Filipino for "hero") campaign as the right way to beat the "COntraVIDa" (Filipino for "villain"), COVID-19. This was, as it turned out, only the first campaign. The name itself reflects the limited objective: BIDA is an acronym that, in colloquial Filipino, lists the four basic anti-COVID protocols (wear masks, wash hands, keep a meter's distance, know what's fact and what's not). The second campaign focused on vaccination, promoting the benefits of vaccines and encouraging the public to get vaccinated. This time, the government — in coordination with the private sector's own communications campaign — launched what it called its RESBAKUNA initiative (the name is a punny portmanteau, merging the image of the Defender, or "resbak" in slang, and the necessity of the vaccine, or "bakuna" in Filipino).

The DOH vaccination campaign offered the public a potent mix: a cocktail of persuasion (e.g., celebrity endorsements), nudges (e.g., free shuttles and pop-up

[14] The Philippine consumer market is traditionally classified into five classes, from high-income A to the poorest E. The December 2019 survey of Social Weather Stations determined that classes A, B, and C account for 7% of the country's population, class D (or the masses) for 75%, and class E, 18%. See https://www.pids.gov.ph/details/news/in-the-news/counting-the-social-classes.

vaccination sites), and incentives (e.g., discounts from participating stores for those with proof of vaccination).

The private sector, through Task Force T3, conducted its parallel communications campaign from May 2021 until the end of 2022 to increase public acceptance of vaccination. It built on the success and the lessons learned from its first campaign, called "Ingat Angat Tayong Lahat" (colloquially, All of Us Will Take Care, All of Us Will Rise Again), which ran in the last quarter of 2020. The second campaign, conducted in coordination with the government's Resbakuna drive, was called "Ingat Angat Bakuna Lahat" (To Take Care and Rise Again, Let Us All Get Vaccinated).

Torres, the managing director of McDonald's Philippines who served as communications lead for Task Force T3, applied "contextual messaging" to the different challenges of the vaccination phase. She divided the vaccination rollout into three sub-phases. "When supply is low and demand is low, we focus messages on reasons why we should consider getting vaccinated [...] When supply and demand increase and when throughput (the jab rate) becomes critical, we focus the message on the arrival of vaccines as a symbol of hope, on the increasing number of Filipinos getting vaccinated, and on the safety and efficacy of the COVID vaccine. When demand outstrips supply, we continue to reassure the unvaccinated about the safety and effectiveness of vaccines" (Torres, 2022).

The private sector's information program also offered the public the same attractive cocktail, including celebrities posting their vaccination photos on social media, on-ground activation events, and discounts from some 200 restaurants. Other players were active in the mix. For instance, the UN Development Programme, working closely with the country's economic planning agency, the National Economic and Development Authority (NEDA), commissioned a study on vaccine acceptance and health communication just as the vaccination rollout started. Among other outcomes, it recommended ways in which the communication campaigns for the vaccination program could be improved (Ligot *et al*, 2021).

"The big win that NEDA found was, It's not a one-size-fits-all situation. Geographically, some areas are ahead of others, some are behind [...] There were some areas which are self-admitted hesitant but somehow were getting vaccinated, and vice versa. There were some areas that were kind of lagging in vaccination, but said on average 'we're actually [for] acceptance' [...] And then using combinations of that information, we were able to break the population down into the usual market segments" (D. Ligot, personal communication, 23 February 2023).

Another finding had direct relevance to government conduct: "People felt that supply was being manipulated, because of preferential treatment, so that that crept up but that was highly correlated with side effects. So people didn't want bad vaccines, at the same time trust in the government was also a factor. If they feel it's being rigged, they won't even bother" (D. Ligot, personal communication, 23 February 2023).



# PART III: ON ENSURING EQUITY

The Plan summarizes its classification scheme in determining priority groups: "The primary goal in identifying the eligible population and vaccination is to directly reduce morbidity and mortality and maintain most critical essential services. The secondary goal is to control transmission and minimize disruption of social economic and security functions. And lastly, the tertiary goal is to resume the country's essential activities to near normal. These goals guided the selection of priority eligible groups." (DOH, 2021a).

The Plan classifies the "priority eligible population" into 12 categories, with five groupings under A, six under B, and the rest of the population under C. Originally, the five Priority A groupings were determined to be as follows: A1, frontline health workers; A2, indigent senior citizens; A3, other senior citizens; A4, remaining indigent citizens; and A5, uniformed government personnel.

One month after the Plan was released, the Priority A classifications were changed,[15] ostensibly in an effort to clarify the categories but in reality because the original classifications were rushed (Ranada, 2021). The indigent population was moved down from A4 to A5; the original category A5 was expanded from uniformed personnel to frontliners in essential sectors, both public and private; and the expanded category was moved up to A4. All senior citizens were included under A2, and persons with co-morbidities were classified as the new A3 (see Table 2).

At that point in the pandemic, it had become clear that individuals 60 years and older were disproportionately vulnerable to the worst effects of COVID-19. A UN policy brief on the effects of COVID-19 on older persons warned of precisely that special risk ("The impact of COVID-19 on older persons," May 2020). In July 2021, the WHO raised the alarm, saying "The elderly are at the highest risk of the most severe outcomes of COVID-19. Seven out of 10 COVID-19 deaths in the Philippines are from this group" (World Health Organization, 2021). As of 14 February 2023, a disturbing 61% of all COVID-19 deaths, or over 40,000, were senior citizens.

The rationale for including persons with co-morbidities as a separate priority category was easy to understand, but determining exactly which pre-existing conditions qualified as co-morbidities and which proof of co-morbidity qualified as legitimate was harder to define. Two more DOH memoranda, issued a week apart, elaborated on the criteria for inclusion in the category.[16]

[15] Through DOH Department Memorandum 2021-0099.

[16] DOH Department Memoranda 2021-0157 and 2021-0175.

The COVID-19 Vaccination Dashboard as of 12 February 2023 (Table 8) showed that 48.6 million individuals classified as Priority A had been fully vaccinated, or about two-thirds of all fully vaccinated individuals in the Philippines.

**Table 8: Number of Priority A individuals fully vaccinated**

**PRIORITY GROUP BREAKDOWN**

| | A1<br>*Frontline Healthcare Workers, Expanded Pop.* | A2<br>*Senior Citizens* | A3<br>*Persons w/ Comorbidities, Expanded Pop.* | A4<br>*Frontliners in Essential Sectors* | A5<br>*Indigent Population* | B&C<br>*Rest of the Population* |
|---|---|---|---|---|---|---|
| FIRST DOSE | 2,961,460 | 5,433,008 | 8,042,865 | 19,544,880 | 9,258,674 | 25,792,411 |
| COMPLETE DOSE | 3,026,501 | 6,931,078 | 9,472,142 | 19,735,037 | 9,487,939 | 25,207,406 |
| BOOSTER DOSE | 1,819,298 | 2,769,860 | 3,107,151 | 7,025,326 | 2,141,195 | 4,588,064 |

*Over 48.6 million individuals belonging to the five Priority A categories have been fully vaccinated, as of 12 February 2023. Source: COVID-19 Vaccination Dashboard; the first row is first dose, the second is full dose, and the third is booster dose (https://doh.gov.ph/vaccines).*

The weekly (formerly daily) case bulletin issued by the DOH includes four highlights related to the vaccination program: percentage of target population fully vaccinated, percentage of senior citizen target population fully vaccinated, total number of individuals fully vaccinated, and total number of individuals vaccinated with at least one booster dose (it also includes the number of individuals added to the fully vaccinated total in the preceding week and the number of individuals administered at least one additional dose in the preceding week). The emphasis on the vaccination of senior citizens is welcome, and can be the basis of a new, shorter-term information drive. In the case bulletins, however, there is no information related to vaccine brands.

## 3.2. Economic recovery as priority

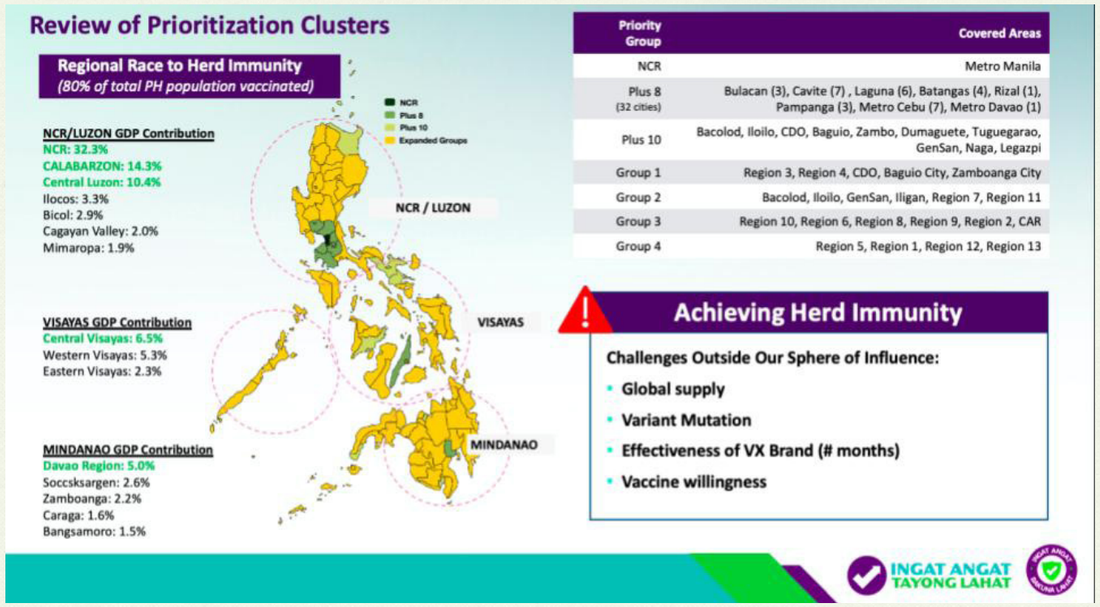
Vaccines are not administered in a vacuum. Geography matters, especially in an archipelago like the Philippines, particularly because most vaccine shipments are received only in the main airport, located in Metropolitan Manila. How did the deployment plan strategize the geographical distribution of the vaccines? Which provinces, cities or municipalities, or barangays were prioritized?

In reality, economic factors played an important role in the "identification of geographical areas" for the distribution of vaccines. There is considerable overlap between the high-burden locations and the country's most economically active areas. The National Capital Region (NCR), or Metropolitan Manila, is the hardest-hit administrative region in the country, in terms of number of cases and number of deaths. It is also the most economically active region, accounting for about a third of the gross domestic product. The overlap can be explained by many factors related to economic activity: denser population centers, bigger and more crowded transportation hubs, and a greater number of transit points and logistics distribution centers.

In the actual deployment of the vaccines, as they arrived in tranches, the Plan followed a framework that sought to strike a balance between public health priorities and economic concerns. Figure 3 reproduces a key slide from the communications team of Task Force T3, which shows the graduated scheme of priority areas, starting with the NCR alone, then NCR plus eight provinces, then those plus ten other provinces, and finally Expanded Groups 1 to 4, or the rest of the regions. It also indicates the GDP contribution of each region.

In sum, along with health priorities, one of the objectives of the vaccination program was to stimulate economic recovery. Factors such as contribution to GDP were used to determine where the vaccines went; the priority areas (upper right in Figure 3) were also the areas with high contribution to GDP.

**Figure 3: Economic factors also helped determine where vaccines went**




*Source: Ingat Angat Bakuna Lahat Final Report*

It is unclear whether those involved in the design, planning, or execution of the vaccination rollout acted in terms of an urban-rural dynamic, but the economic framework that ended up driving the physical allocation of vaccines inevitably reflected an urban-rural divide. The most economically active areas were often the hardest-hit by the pandemic; they also tended to be highly urbanized.

Iloilo City Mayor Jerry Treñas is one of those local government officials outside of the NCR who felt, in his words, like "a second-class citizen" because his city was low on the priority list. "They cannot explain why", he said. "I was already inquiring from

them why Iloilo was not included in the priority areas." Treñas believes that he was reelected in the May 2022 elections because his constituents shared the sense that "we were second-class citizens" and that he had stood up for them (J. Trenas, personal communication, 16 January 2023).

The argument can be made that the application of this economic framework ended up sacrificing vaccine equity — that, for instance, the indigent population in a province with many industrial parks was treated differently from the indigent population in a province more dependent on agriculture. To resolve that argument, a close study to compare and contrast economic activity indicators per region with COVID-19 data is needed.



# PART IV: ENSURING SELF-RELIANCE, TRANSPARENCY, ACCOUNTABILITY

The Philippine pandemic response in the first year of the public health emergency was marked by what medical anthropologist Gideon Lasco called "medical populism" (Lasco, 2020). Duterte personalized the coronavirus, turned the public health crisis into a public security issue, and cast his lot, and that of the country, with China and Russia.[17] While this populist approach continued until the end of Duterte's term, the rollout of the vaccination program in 2021 and its continuation into a third year — during the Duterte administration — turned out to be, by and large, effective.[18]

## 4.1. The black box

Unlike its negotiations with Western, Russian, and Indian vaccine suppliers, as well as the open nature of the COVAX processes, the Philippines' negotiations with Chinese vaccine suppliers were limited to select officials. "That's a black box to me", Borromeo said (P. Borromeo, personal communication, 5 January 2023). "We were not privy to the discussions", Luz said, adding that it was common knowledge that the Duterte administration "was very pro-China" (G. Luz, personal communication, 28 December 2022).

Leachon, who once served as a special adviser to the inter-agency task force coordinating the government's pandemic response but has since turned into a critic of that same response, expressed "surprise" at the government's preference for Chinese vaccines. "I wonder about our preference, because they [the Chinese vaccines] are not well-known. And they have a low efficacy rate on paper. We had a choice. We had the money at the time. So the $64 question: Why didn't we do the right thing?" (A. Leachon, personal communication, 21 February 2023).

The metaphor of the black box can be extended to the Philippine government's special relationship with China, and the largely opaque manner in which the Chinese government's involvement in the Philippines' official pandemic response was treated.

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[17] Much can be said about the Duterte administration's wrongheaded, *ad hoc*, and deadly populist response to the pandemic, but the situation in the first few months can be summed up by an extraordinary statement from the Senate of the Philippines. Matters had grown so bad the senators called on the Secretary of Health to resign (18th Congress - Senate Resolution No. 362 - Senate of the Philippines, 5 May 2020).

[18] According to the Philippine government, the Group of 20 or G20 countries named it an "example country" for its vaccination program (Servallos, 2022); institutions like the WHO ("Remarkable": WHO Exec Commends PH COVID-19 Vaccination Program, 2021) and the World Bank (Pasig City: A COVID-19 Vaccination Success Story,

This lack of transparency was a failure of the Duterte government, but the Marcos presidency which succeeded it in the second half of 2022 has also failed to ask its predecessor government to come clean or set the record straight. The black box is defined by four failures in transparency and accountability:

***(A) Special treatment for China.*** From the start of the pandemic, the Philippine government was reluctant to impose any restrictions or sanctions on China, which reported the first known case of the novel coronavirus. Initial appeals to ban inbound flights from China were dismissed, both by President Duterte ("it would not be fair") and his Secretary of Health (there would be "political and diplomatic repercussions"). The government announced a shortage of face masks for domestic use just a few days after it had both donated and sold face masks for use in Wuhan and other parts of China. In March 2020, the DOH disclosed that it had discarded test kits made in China because of their low accuracy (40%); it retracted the statement the next day, after the Chinese embassy complained (Valenzuela, 2020; Lasco, 2020).

In his sixth and final State of the Nation Address, in July 2021, President Duterte gave effusive thanks to Chinese President Xi Jinping for assuring him early on that China would send vaccines to the Philippines. "That debt of gratitude cannot be repaid", he said (Ybiernas, 2022). This sense of indebtedness must have been a factor in President Duterte's consistent refusal to turn China into the "other", the enemy, as his populist politics required, unlike Donald Trump in the US and Jair Bolsonaro in Brazil (Lasco, 2020). It is also likely the reason he "anchored the nation's COVID-19 recovery on the development of the Chinese vaccine" (Teehankee, 2022).

***(B) Premature and still-unexplained use of Chinese vaccines.*** The day after Christmas in 2020, Duterte made a startling announcement. He said that some officials and soldiers belonging to the Presidential Security Group, the military unit that is the presidential protective security service, had been inoculated with the Sinopharm vaccine. At that time, no vaccines had been granted any authorization, whether for emergency use or for compassionate purposes, in the Philippines. The Secretary of National Defense admitted that the vaccines had been "smuggled" in (Reuters, 2020). Two months later, in February 2021, the Philippine FDA granted the Presidential Security Group a "compassionate permit" to import 10,000 doses of Sinopharm — many months before the FDA gave the vaccine the EUA that allowed it to be deployed nationwide (Ranada, 2021b). To this day, the government has failed to issue a comprehensive explanation that answers the most important questions: who was vaccinated; did Duterte approve the vaccination; how were the vaccines brought in; why were health and FDA officials kept in the dark? (Tomacruz, 2021).

Also early in 2021, a prominent civic leader of the Filipino-Chinese community in Manila said she had learned that some 100,000 Chinese nationals residing or working in the Philippines, many of them part of the controversial Philippine Offshore Gaming Operators industry, had already received Chinese vaccines as early as November 2020 — again, despite the lack of official approval. "Her exposé confirmed what many suspected would be a thriving black market for COVID-19 vaccines" in the country (Mendoza *et al*, 2021). These false starts of the country's vaccination program prompted multiple news cycles and provoked much discussion on social media; they



may have fed into public concerns about President Duterte's close relationship to China and increased the public's brand skepticism about Chinese vaccines, reflected in the Social Weather Stations survey of May 2021 (Cabato, 2021).

***(C) Officials' ignorance of decisions and details involving Chinese vaccines.*** The controversies involving Chinese-made vaccines were compounded by a lack of transparency, not only between the government and the anxious public, but also among government officials. No DOH or FDA official was informed about, was consulted on, or approved the early vaccination of the Presidential Security Group. "Definitely somebody did something wrong. With the FDA law, it says it is illegal to import, distribute, manufacture, use unregistered drugs", the FDA director-general said. The defense secretary said he had not known about the vaccination (but nevertheless justified it as necessary for the "protection" of the President). The President's spokesperson said he wasn't aware either, and put the responsibility back with the military: "They must be privy to that information. I was not." (Mendoza *et al*, 2021; Reuters, 2020; Luna, 2021; Tomacruz, 2021).

When the FDA issued a compassionate permit allowing the importation of 10,000 doses of Sinopharm for the use of the Presidential Security Group in February 2021, the President's spokesperson again did not know the most important details (Ranada, 2021b). The Secretary of the President's Cabinet, who served for a time as spokesperson for the pandemic response, also confessed ignorance about who had taken the unregistered vaccine before: "I really don't know the details" (Panti, 2021). A study on "the politics of COVID-19 vaccine confidence" concluded: "The national government appeared to hold itself to a different standard than that for other Filipinos when it justified the use of a donated vaccine, which had not undergone regulatory evaluation and approval, for a select group of government officials and employees at a time when the government was unable to procure vaccines for the populace" (Sabahelzain *et al*, 2021).

***(D) A corruption scandal involving pandemic funds.*** As the vaccination rollout gained momentum in 2021, the news broke that a new, under-capitalized company with links to a Chinese businessman close to President Duterte had: (a) cornered the funds reserved for the pandemic response; (b) overpriced medical supplies it sold to the government; and (c) supplied substandard goods. Pharmally Pharmaceutical Inc. was established only in 2019 with a paid-up capital of about USD11,000, but it was awarded over USD157 million in government contracts. "Another close associate of Duterte was also linked to the Pharmally corruption case. Chinese businessman Michael Yang, Duterte's friend and former economic adviser, was identified as the financier and guarantor of Pharmally" (Tana, 2022).

The blue ribbon committee of the Philippine Senate, chaired by an erstwhile ally of President Duterte, conducted 18 hearings into the Pharmally scandal; nine senators (two short of the number necessary to raise the committee findings to the Senate as a whole) issued a report that concluded, among other findings, that President Duterte had "betrayed public trust". The President had vociferously defended Pharmally and barred government officials from testifying at the Senate hearings. (Tana, 2022; Teehankee, 2022). "The Pharmally scandal has become the most prominent allegation of corruption against the Duterte administration" (Teehankee, 2022).

## 4.2. Vaccination by brand

The FDA's website is the only official government website that provides information on dose administration per vaccine — but in an incidental way. Nestled in the regular and cumulative reports on adverse reactions to vaccination ("Reports of Suspected Adverse Reaction to COVID-19 Vaccines") is a table that includes data on vaccine distribution by brand. The latest available is the December 2022 report, which covers the vaccination program 1 March 2021 - 31 December 2022 (Table 9).

**Table 9: Doses administered, per vaccine brand**

| Vaccine | Date Started | Doses Administered |
|---|---|---|
| Sinovac | 1 March 2021 | 46,282,118 |
| AstraZeneca | 7 March 2021 | 22,135,341 |
| Sputnik V / Sputnik Light | 4 May 2021 | 1,115,882 |
| Pfizer | 13 May 2021 | 72,245,351 |
| Moderna | 30 June 2021 | 19,609,498 |
| Janssen | 20 July 2021 | 7,200,829 |
| Sinopharm | 25 August 2021 | 1,038,476 |

*Source: fda.gov.ph*

The two Chinese vaccines have contrasting records. Sinovac, the first vaccine to arrive in the country, is the second most used among the seven vaccines deployed in the program, at over 46 million doses; Sinopharm, the last to be deployed, is seventh, at a little over one million doses.

It must be noted, however, that the data on per-brand vaccination available on the FDA site differs from the vaccination information provided on the DOH website in one important respect: the totals do not match. The DOH reports that, as of 3 January 2023, a total of 165,904,800 doses had been administered; the FDA November 2022 summary, prepared more than a month earlier, reports a higher total of 168,816,023 doses.

The FDA reports on adverse cases — which were released weekly from March 2021 until June 2022, then fortnightly in July and August 2022, and then finally monthly starting in September 2022 — used to include data on first, second, and booster doses on a per-brand basis, but no longer do.

For instance, in the 10 July 2022 report, the last to include such information, the breakdown shows that less than one million individuals used either of the two Chinese vaccines for booster doses, while about 12 million of the 16 million individuals who had taken either one or two booster doses at that time chose either Pfizer or Moderna (Table 10). Since the 25 July 2022 report, the per-brand information has been limited to the total number of doses administered.



**Table 10: Doses administered, per dose or booster, per vaccine brand**

*Table 2. Distribution of reports of adverse reactions for each vaccine*

| Vaccine | Date started | Total vaccine doses administered[b] | Number of fully vaccinated individuals[b] | Number of individuals partly Vaccinated | Number of individuals with first booster shot | Number of individuals with second booster | Total number of reports[a] | Reports of non-serious events | Reports of serious events |
|---|---|---|---|---|---|---|---|---|---|
| CoronaVac | 01 Mar 2021 | 45,866,668 | 21,949,708 | 1,048,633 | 911,421 | 7,198 | 35,745 | 32,496 | 3,249 |
| AstraZeneca | 07 Mar 2021 | 21,941,778 | 9,052,395 | 775,829 | 3,047,938 | 13,221 | 36,826 | 35,054 | 1,772 |
| Sputnik V/ Sputnik Light | 04 May 2021 | 1,108,354 | 531,994 | 44,955 | 338 | - | 880 | 831 | 49 |
| Comirnaty | 13 May 2021 | 59,553,924 | 24,506,757 | 2,264,752 | 7,496,333 | 779,325 | 18,973 | 16,888 | 2,085 |
| Moderna | 30 June 2021 | 19,209,276 | 7,343,374 | 514,028 | 3,854,017 | 154,483 | 6,158 | 5,457 | 701 |
| Janssen | 20 July 2021 | 7,208,321 | 7,176,453 | - | 31,868 | - | 5,235 | 4,187 | 1,048 |
| Sinopharm | 25 Aug 2021 | 1,039,342 | 495,071 | 48,463 | 737 | - | 404 | 325 | 79 |
| **TOTAL** | | 155,927,663 | 71,055,752 | 4,696,660 | 15,342,652 | 954,227 | 104,221 | 95,238 | 8,983 |

Data source: [a]VigiFlow, [b]NVOC daily report as of 10 July 2022
Notes: Additional information may become available in individual cases, which may change the figures presented
[b]An individual is considered partly vaccinated if they have received only one dose of a two-dose vaccine course. An individual is considered fully vaccinated if they have received a single-dose vaccine or both doses of a two-dose vaccine
[c]Data concerning various vaccines are not directly comparable. COVID-19 vaccines profile varies, they have not been used for equal periods of time and they have been administered to number of people with different profiles including various age and sex.

*Source: "Reports of Suspected Adverse Reaction to COVID-19 Vaccines", 10 July 2022 report, Food and Drug Administration*

It is curious that the DOH does not publish per-brand vaccination data, and that the public catches a glimpse of the per-brand breakdown only through a loophole, in the form of a recurring table in a regular report on adverse reactions. That the broken down data (number of doses per vaccine, classified according to first dose, second dose, first booster, and second booster) is no longer available suggests that the loophole has been deliberately tightened.

Why not bring out information per vaccine brand into the open? Undersecretary Ho said the reason was probably the lag time between two different sets of data. The aggregate data, which goes into the dashboard, is submitted by local governments every day. However, the more granular data which includes information on brands comes much later. "Definitely, there's a gap in the length of time that the [local governments] are able to submit that." It's not that "we don't have the data and we don't want to present it that way, but the aggregates for the scorecard being given to everyone is the aggregate data, so we wouldn't have the breakdown yet." (B. Ho, personal communication, 8 February 2023).

This answer is sensible, but it does not suffice. Two years after the start of the vaccination rollout, the DOH still does not provide regular updates on brand-specific vaccination. It is possible that this relative lack of transparency (relative, because the information can still be extracted from the FDA website) is a vestige of the black box treatment involving Chinese vaccines. Whether by design or by accident, however, it does reinforce the main message of the vaccination program, that all vaccination works. Highlighting the differences between vaccine use could negate all that.

Regarding the fundamental assumption behind this research project, that it is in the country's best interests to develop a reliable pipeline to vaccines made in the Global South, Ligot struck a cautionary note: "When you look at it purely from a supply aspect, I would agree. But then there are two more factors to consider. One is the speed of innovation. There's a great distance between the Western vaccines and the Indian and Chinese vaccines. The second aspect is [it's] really hard to disentangle the role of government in all this. Even if the whole Sinovac-was-first situation may have come from a completely benign rationale, people can't help but suspect what's going on." He added: "People would be hesitant. 'I'm not going to get that crap, because I don't trust the government.'" (D. Ligot, personal communication, 23 February 2023).



# PART V: CONCLUSION

Despite a false start, and in spite of logistical shortcomings, the country's vaccination program succeeded in fully vaccinating 95% of the target population against COVID-19. Much remains to be done, including getting at least 70% of the target population inoculated with booster doses. As of 6 February 2023, the total number of individuals who had received at least a single booster was 21.3 million, or only about 27% of the target. The momentum of the vaccination campaign, unprecedented in scope and scale, may have slowed, but it persists. After Marcos Jr. took office in mid-2022, he appointed only a temporary officer in charge of the DOH, for a reason that was bizarre on its face: he said he would appoint a Secretary of Health once the public health situation "normalizes" (Corrales, 2022).

The immediate challenge is complacency. The number of new vaccinations every week is in the tens of thousands, a number that is considerable but nowhere near the peak. As a result, the percentage of fully vaccinated senior citizens has stayed stubbornly just below 80% for many weeks. The number of booster doses administered is stuck below 30%.

If the response to the challenge is to drive up the number of booster vaccinations, what can the Marcos government learn from the experience of the last three years? If the challenge is the outbreak of another pandemic, what can be done better, more efficiently, to save more lives? In particular, how can greater vaccine equity, accessibility, transparency, and accountability be assured?

The first lesson involves vaccine supply. As long as the Philippines continues to lack the industrial and financial capacity to produce vaccines of its own, it must continue to rely on a portfolio approach, minimizing the risk of supply failure by maximizing the number of possible sources. But the country's experience with the COVID-19 vaccination program suggests that seven vaccines is too many, and that a smaller number may be optimal.

It would be best, then, to ***implement a smaller portfolio approach to vaccine procurement.*** Dealing with seven vaccines in 2021 meant dealing with seven different supply chains, complicating the entire program. The negotiations with the vaccine manufacturers in 2021 also suggest that the Philippines must invest in closer working relationships with its potential vaccine sources. To ensure that the Philippines can enjoy the benefits of a vaccine made in Asia, say from China or Vietnam, or from Japan or Korea, it is necessary to develop both closer commercial relations with the manufacturers and closer diplomatic engagement with the governments in those countries.

The second lesson is related to the bureaucratic temptation to complicate processes or multiply categories. It would be best, for instance, to ***simplify the prioritization framework.*** A total of 12 categories, some with lengthy lists of sub-categories, is too many and too unwieldy. One lesson from the experience of local governments like Quezon City is that supply should be a dynamic factor in identifying priority groups (Escaño-Arias & Eleria, 2022). When vaccine supply is sufficient, vaccine access should be opened up; when supply becomes limited again, access should follow the prioritization scheme. A simplified framework should also include children as a separate priority group.

The third lesson is obvious to those who worked in the vaccination program. Even though the national government has the responsibility to enter into supply arrangements with vaccine manufacturers, and even if the business community may have the financial capacity to reserve vaccine supply, the distribution and administration of the vaccines largely depends on the work of local governments. Given this reality, it would be best to ***include the local governments at the highest levels of planning and decision-making from the start,*** through the various leagues (associations of provinces, cities, municipalities, and barangays) and in their own capacities. To prevent conflicts over prioritization of vaccine allocations, the distribution plan must be designed and agreed to well before the next pandemic.

The fourth lesson recognizes the paramount importance of sympathetic or cooperative public opinion. Vaccine hesitancy and vaccine brand skepticism diminish the possibility of public cooperation, which is necessary to a successful pandemic response. Strategic, well-funded, and coordinated information campaigns can help shape public opinion. To do so effectively, the government and the private sector, through the business community, should ***cement their partnership in communications***, coordinating initiatives as soon as a public health emergency hits.

The fifth lesson is drawn from the sorry experience of unnecessary and unproductive secrecy that surrounded government decisions involving the use and purchase of Chinese vaccines. It is best to ***practice transparency.*** Vaccinating against a global scourge, fighting an invisible enemy, requires utmost trust between government and public. The fight has no space, or use, for the black box of secrecy.



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# UNEQUAL AND PLAYING FAVORITES?

## The Lack of Vaccine Accountability and Equity in Thailand

SARINEE ACHAVANUNTAKUL

# PART I: THAILAND'S VACCINATION DRIVE - INTRODUCTION AND TIMELINES

As of 17 February 2023, Thailand had recorded 4,727,628 cases and 33,894 deaths from COVID-19. The worst month for the country was August 2021, with over 1,300 deaths daily (Ministry of Public Health, 2022).

Thailand's vaccination acquisition plan began in August 2020 with preliminary negotiations with various manufacturers[1] and the COVAX program. There have been three attempts to research and manufacture local vaccines, but no local vaccine had passed Phase 3 trials as of mid-February 2023 (see Chapter 4). In March 2021, the government issued the COVID-19 Emergency Decree and set up the Centre for COVID-19 Situation Administration (CCSA) to centralize all management relating to the COVID-19 emergency, including vaccine acquisition (Thai Government PR, 2021).

The use of an Emergency Decree made holding the government accountable difficult, since the Decree gave the state a wide range of powers and limited liability, creating a decisive centralized decision-making apparatus like in times of war. Even in the case of "unreasonable" use of power, authorities may not be liable with civil, criminal, or disciplinary penalties under the Emergency Decree. The burden of proving whether the authorities' acts "cause unreasonable harm" is on the person claiming to have been harmed. In addition, even though the exercise of power under the Emergency Decree is a direct "administrative power", the mechanism for checking administrative power in Thailand, the Administrative Court, cannot be invoked, according to Section 16 of the Decree. If the government's act under the Emergency Decree unreasonably affects the rights of people or causes any harm, the people affected cannot sue the government in the Administrative Court as usual (iLaw, 2021).

Thailand kicked off a nationwide COVID-19 vaccination program in June 2021, but one year later the vaccination coverage had plateaued. An official at the Department of Disease Control (DDC) suggested that this could be because many Thais, especially the elderly, were afraid of side effects or had already been infected by COVID-19 and saw no need for vaccination; and that many people were waiting for next-generation vaccines (The Matter, 2022). By the end of 2022, no bivalent COVID-19 vaccine had been authorized for use in Thailand (BBC Thai, 2022). As of 10 February 2023, vaccination coverage stood at approximately 78% population coverage of two-dose programs, and slightly more than 50% booster coverage (third dose or more) (DDC, 2023; WHO, 2022).

Between 2020 and 2022, Thailand experienced five waves of COVID-19 infections.

[1] Negotiations including with AstraZeneca, Pfizer, and Sinovac.



Their dominant features and the status of vaccination during each period are summarized in Table 1.

**Table 1: COVID-19 infection waves vs. vaccine situation during each wave in Thailand**

| COVID-19 infection wave | Vaccine situation in the country at that time |
|---|---|
| First wave: April-May 2020<br>• Spread originated from Chinese tourists who entered Thailand<br>• Origin traced to popular boxing match venues and nighttime entertainment venues in Bangkok<br>• Government announced nationwide lockdown measures to combat COVID-19 | Vaccine negotiations not commenced |
| Second wave: December 2020-March 2021<br>• Mostly B.1.36.16 COVID-19 variant found in migrant laborers in Samut Sakorn and nearby provinces | Cabinet resolution (5 January 2021)[2] unveiled the first vaccine acquisition plan<br>• Target: 66 million doses to cover 50% of population, comprising 40% from AstraZeneca, 40% from COVAX, and 20% from other vaccines including two million doses of Sinovac |
| Third wave: April-July 2021<br>• Mostly nationwide spread of Alpha COVID-19 variant when people all over the country traveled to and from home during Thai New Year holidays | April 2021 – Government increased the target of vaccine acquisition plan from 66 million doses to 100 million doses, to cover 70% of the population<br>• By the end of July 2021, approximately 10 million doses of AstraZeneca and 29 million doses of Sinovac had been delivered |
| Fourth wave: July-October 2021<br>• Most severe wave of COVID-19 in Thailand<br>• Peak deaths occurred during this period<br>• Spread of Delta variant led to crisis of the health system in which many patients died while waiting for treatment | August 2021 – Vaccine shortage situation finally improved<br>• Government agreed to order another 60 million doses (later reduced to 38.4) of AstraZeneca for 2022<br>• September 2021 – AstraZeneca delivered eight million doses of its vaccines<br>• The first delivery of Pfizer vaccine arrived in the same month<br>October 2021 – Vaccination drive for children aged 5-17 years old with Pfizer began |
| Fifth wave: January 2022 onwards<br>• Mostly the spread of Omicron variant, with easier infection but less severity | Vaccination coverage steadily increased to 78% of the population for standard two-dose regimen, and slightly more than 48% for booster coverage (third dose or more) as of mid-December 2022 |

*Source: Juengsateansup et. al. (2022) and DDC dashboards.*

[2] Cabinet resolution of 15 January 2021: https://dep.go.th/images/uploads/files/thaigov_5_Jan_2021.pdf

Table 2 summarizes Thailand's acquisition and use of vaccines for COVID-19 as of 6 December 2022. China was the largest donor country, delivering 3.4 million doses of inactivated-virus vaccines made in China — 2.9 million Sinovac and 0.5 million Sinopharm.

**Table 2: Vaccine acquisition and budget, by brand**

| Vaccine brand (type) | Total doses approved by Cabinet (millions) | Total budget approved by Cabinet (THB, millions) | Total jabs as of 6 Dec 2022 (millions) | Donated from other countries (millions) | Existing stock as of 6 Dec 2022 | Actual payment made |
|---|---|---|---|---|---|---|
| Government program (free of charge) | | | | | | |
| AstraZeneca (viral vector) | 96.4 (reduced from 121 in June 2022) | 28,729 | 48.7 | 2.58 (from Japan, UK, Korea, and Germany) | N/A | N/A |
| Sinovac (inactivated virus) | 31.4 | 15,775 | 26.5 | 2.9 (from China) | N/A | N/A |
| Pfizer-BioNTech (mRNA) | 60 | 26,775 | 46.8 | 1.5 (from US) | N/A | N/A |
| "Alternative vaccine" (the term people adopted to mean vaccines not procured by the government; people have to pay for them in most cases) | | | | | | |
| Vaccine brand (type) | Total no. doses ordered (millions) | Total price in contract | Total jabs as of 6 Dec 2022 (millions) | Donated from other countries (millions) | Existing stock as of 6 Dec 2022 | Actual payment made |
| Moderna (mRNA) | At least 18 | N/A | 7.7 | 1 (from US) | N/A | N/A |
| Sinopharm (inactivated virus) | 21 | N/A | 14.9 | 0.5 (from China) | N/A | N/A |

*Source: Cabinet resolutions, DDC vaccine data, news reports.*



Most information in this report is primary data collected from Cabinet resolutions, official vaccination data released by the Ministry of Public Health (MOPH), and in-depth interviews with the following informants:

| Name | Position | Affiliation | Date of interview | Method of interview |
|---|---|---|---|---|
| Bancha Pongpipat | Managing Editor | The Matter (online media) | 8 Dec 2022 | Online |
| Roisai Wongsuban | Program Advisor | Freedom Fund (civil society) | 1 Dec 2022 | Online |
| Sureerat Treemanka | Chairman, Healthcare Subcommittee | Thailand Consumers Council (civil society) | 14 Dec 2022 | Online |

These data were supplemented with secondary data from news articles, press releases, and information used by representatives from opposition parties during the motions of no-confidence in 2021 and 2022.

# PART II: ON INFORMATION ACCESSIBILITY

The DDC and the MOPH established a central portal for all information relating to COVID-19 vaccines.[3] In addition, the MOPH manages two public dashboards that are based on the same information, one with a focus on aggregate national vaccination data,[4] and one with a focus on subnational vaccination data.[5] The two dashboards disclose subnational (provincial) information for all 79 provinces in Thailand, including inoculation information, making them more detailed than the DDC's COVID-19 vaccine portal.[6]

The main information provided to the public on all the above official websites is the daily tally of COVID-19 vaccination, including the total number of jabs broken down by vaccine brand. Information on daily and cumulative jabs are broken down by the number of doses and different target groups. For example, the "608" target group covers people aged 60-plus, those with seven underlying conditions, and women at least 12 weeks pregnant.

From 1 October 2022, when the label of COVID-19 was downgraded from "dangerous communicable disease" to "communicable disease under surveillance" and the Emergency Decree was lifted (Ministry of Public Health, 2022), the DDC stopped publishing daily COVID-19 related data, including vaccine data, and switched to publishing data on a weekly basis on the same channels.

The government has never publicly disclosed vaccine delivery records, vaccine distribution data, existing vaccine stock, vaccine expiration or wastage information, or actual expenses incurred in the procurement of vaccines. In 2022, six reporters from multiple local media outlets submitted requests for this data by invoking Thailand's Freedom of Information law (FoI law), but as of 15 December 2022 they had yet to receive a response (Pongpipat, B, personal communication, 8 December 2022).

[3] https://ddc.moph.go.th/vaccine-covid19/

[4] Dashboard subnational (provincial) information showing weekly situation of COVID-19 patients, including the number of: (1) new patients admitted to the hospital; (2) cumulative patients; (3) new deaths; (4) cumulative deaths; (5) people who have received at least one, two, and three doses; (6) pneumonia patients; (7) intubated patient; and (8) new patients comparing among provinces. https://ddc.moph.go.th/covid19-dashboard/

[5] Dashboard subnational (provincial) information showing vaccine inoculation information filtered by region, health area, province, target group, gender, and vaccine manufacturer which can be filtered by duration and number of vaccines received. In addition, there is more analysis showing the relationship between vaccination and infection by 7-day cumulative infection rate (per 100,000 population) and cumulative vaccination coverage (%). https://dashboard-vaccine.moph.go.th/dashboard.html

[6] The DDC's COVID-19 vaccine portal only shows a report of vaccine inoculation by number of who received at least one, two, or three vaccine doses and type of vaccine of Thailand. It does not have detailed sub-national information which is crucial for vaccine distribution planning.



Although the COVID-19 vaccine acquisition plans were announced to the public in advance, questions abounded with regard to the scientific rationale (or lack thereof), political motivations, conflicts of interest, and lack of transparency in the procurement process. Representatives from opposition parties raised issues relating to the irregularities and non-transparency in the acquisition and distribution of Sinovac, AstraZeneca, and Pfizer vaccines no fewer than seven times in the censure debates against the MOPH in 2021 and 2022.[7]

All vaccination data described above are provided in open data and reasonably granular format on the government's central open data website,[8] managed by the Digital Government Development Agency (DGA). All datasets are collected and sent by the DDC.

[7] Criticisms and allegations regarding COVID-19 vaccine procurement was the subject of a censure debate raised by the following opposition MPs in the censure debates between 2021 and 2022: MP Sompong Amornvivat (spoken on 31 August 2021), MP Prasert Jantaruangtong (31 August 2021), MP Wiroj Lakkana-adisorn (1 September 2021), MP Pita Limcharoenrat (2 September 2021), MP Wayo Assawarungruang (1 September 2021 and 19 July 2022), and MP Sorawit Konsomboon (19 July 2022). Collected from parliamentary proceedings, 2021-2022.

[8] https://data.go.th/en/dataset/covid-19-daily

# PART III: ON ENSURING EQUITY

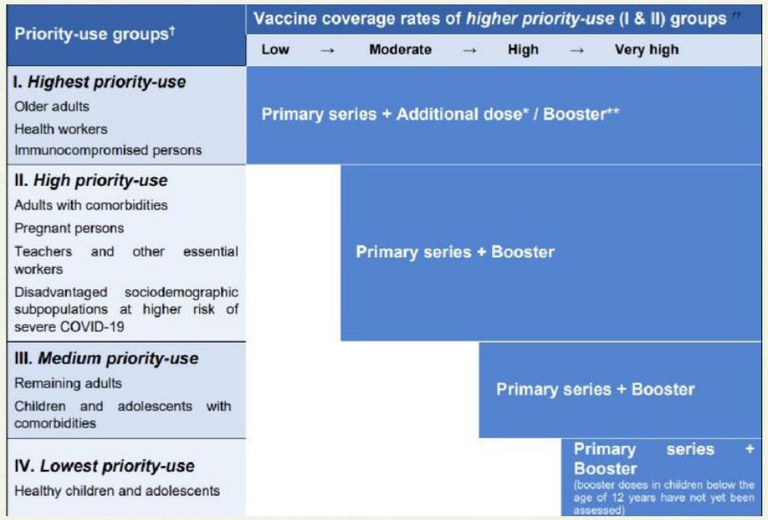
When one looks at the geographical distribution of vaccine coverage in Thailand, there is a clear pattern of inequality: as of early December 2022, roughly 18 months after the start of nationwide vaccination, 54 out of 77 provinces (70%) reported more than 70% two-dose coverage, including Bangkok with over 112% coverage, a figure which suggests that a considerable number of non-residents traveled from outside Bangkok to get jabs in Bangkok. Another 19 provinces (25%) reported 60-69% two-dose coverage on average, while the remaining four provinces reported less than 59% coverage (DDC, 2022). It is worth noting that the four are among the poorest provinces of Thailand, which means relatively low vaccination coverage may exacerbate the already severe economic and social inequalities.

Geographical inequality is not the only kind of vaccine inequality present in Thailand. There are at least five dimensions of vaccine inequality:

1. Target group inequality

On paper, Thailand generally follows the prioritization recommendations of the World Health Organization (WHO) which came out in May 2022 and have been gradually updated (WHO, 2022). The WHO's "highest priority-use" groups include older adults, health workers, and immunocompromised persons, while the "high priority-use" groups include adults with comorbidities, pregnant persons, teachers and other essential workers, and disadvantaged sociodemographic subpopulations at higher risk of severe COVID-19 (see Figure 1).

**Figure 1: Priority-use group definitions of the WHO**






*Source: WHO, SAGE roadmap for prioritizing use of COVID-19 vaccines, last update 21 January 2022.*

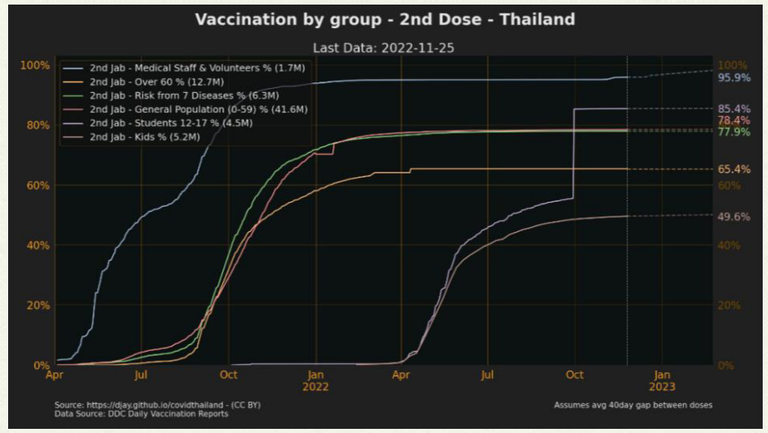
Thailand's health authorities defined "high-risk groups" primarily as comprising health workers and "608" groups. This definition includes all groups in WHO's "highest priority-use" and "high priority-use" recommendations except "teachers and other essential workers" and "disadvantaged sociodemographic subpopulations at higher risk of severe COVID-19".

The DDC announced that the "608" group comprises approximately 18 million people in Thailand, or 26% of the total population.[11] Developments have supported this prioritization — the median age range of people who died from COVID-19 in Thailand between May 2021 through the end of 2022 is 68-78 years (DDC, 2022).

Official data from the DDC as of 15 December 2022 shows that health workers and volunteers have been consistently vaccinated well before other high-risk groups (as seen in Figure 2), as per WHO recommendations, but multiple priority-use groups have not. Between July and August 2021, when Thailand faced the first wave of serious cases from the Delta variant amidst a vaccine shortage (as noted in Table 1), two-dose vaccination coverage for both the "over 60" and "7 high-risk disease" groups (both in the DDC's "608") consistently lagged behind the general population.

Figure 2 shows that the "7 high-risk disease" group's vaccination rate surpassed the rate for the general population only in September 2021, when Thailand's vaccine shortage situation started to improve, before both groups plateaued at approximately 77-78% in January 2022. The two-dose vaccination rate for the high-risk "over 60" group lagged further and further behind the lower-risk general population from November 2022 onwards.

**Figure 2: Second dose vaccination by group**




[2] Thailand has a total population of 66,186,727 (Central Registration Office, Department of Provincial Administration, Ministry of Interior) (Royal Gazette, 2020).

*Source: David Jay COVID-19 Thailand dashboard, based on DDC daily data (2022).*

The target group inequality illustrated in Figure 2 partly comes from the fact that the government never made a concerted effort to effectively target or incentivize the over-60 group for jabs, while the adult working population (not a high-risk group) was given more incentives to register for vaccines, such as a free program launched by the Social Security Department under the Ministry of Labor, which was able to secure a number of vaccines from MOPH despite the adult working population (members of social security) not being a high-risk group according to MOPH classifications.

By the end of 2021, only 65% of people over 60 years old had received two jabs or more. This inequality is even more pronounced when province-by-province data is examined, as discussed in geographical inequality, below.

2. Technological inequality

The target group inequality was exacerbated by vaccination service providers' overwhelming reliance on digital technologies for facilitating vaccinations in Thailand. Many older people (in the high-risk "over 60" group), especially those with low income, have no access to the Internet or smartphones, and therefore could not register for jab appointments on websites or via smartphone applications. By the end of 2020, over 95% of Thailand's population had at least one mobile phone, and 86.4% of all mobile phone users used smartphones (NSO, 2021), which means that potentially (1 - (95% x 85.4%) =) 19% of the population, or 13 million people, had no access to smartphones when the nationwide vaccination campaign began in June 2021. Thus, the trouble of accessing jab appointment channels may have distributed the risks of severe COVID-19 unevenly along socioeconomic lines; this is even more concerning because these people tend to be members of the "disadvantaged sociodemographic subpopulations at higher risk of severe COVID-19" who fit within the WHO's "high priority-use" group.

In addition, there is a plethora of digital channels for making jab appointment, including the MOPH's official "Mor Prom" website and application,[12] the social security website,[13] hospital websites,[14] telecommunications company websites and applications,[15] various municipal governments' websites,[16] private company Intranet,[17]

[12] Mor Prom is an application launched by the MOPH to allow residents to access vaccination services, including vaccine reservation and tracking as well as updated information on COVID-19. It also includes a feature that enables post-vaccination monitoring to check for side effects.

[13] People insured through Social Security can receive vaccination at hospitals affiliated with Social Security by registering with the establishment through the e-service system of the Social Security Office.

[14] Many hospitals offer vaccination services. There is no central agency handling these appointments; each hospital has its own platform and way of registering people for jabs.

[15] The MOPH joined forces with the National Broadcasting and Telecommunication Commission (NBTC) to increase channels for people to register for COVID-19 vaccination at the Bang Sue Central Vaccination Center project. Users can register to get vaccination via channels provided by telecommunication companies.



and other channels. This caused much confusion and anxiety among the public as to which channel to use for securing jab appointments. To make matters worse, even successful appointment registration did not guarantee that the jab would actually be administered on that date: for months, and especially during the period of acute vaccine shortage in Thailand in July-August 2021, there were numerous social media posts and news reports about people who were turned away from health facilities on their appointment dates due to the lack of available vaccines;[18] in other cases, hospitals posted cancellation notices to inform the public that their vaccination appointments had to be postponed, sometimes indefinitely. Even worse, hospitals were afraid to announce appointment delays publicly because the Health Minister was threatening to penalize them. (Rural Doctor Society, 2021).

When the author of this report launched an online survey about COVID-19 vaccine experience during the month of September 2021 via personal Facebook Page, 615 people responded to the survey. Of these, 236 respondents (38.4%) said they made a jab appointment through more than one channel; 38 said they used four different channels to make vaccine appointments, and ten said they used five channels (Achavanuntakul, 2022). Survey respondents said they registered for jab appointments by using both digital channels like the "Mor Prom" application and non-digital channels, including asking for help from relatives or health volunteers to do it for them.

The most popular jab appointment channels, according to survey respondents, were: the 'Thai Ruam Jai" website (the Bangkok Administration's program) (20.7% of total respondents), the "Mor Prom" application (20.4%), appointment made by employers (15.2%), hospital website or mobile application (14.1%), municipal website or mobile application (11%), non-hospital private company website (10.6%), and and seeking help from relatives or acquaintances to register for them (9.7%) (Achavanuntakul, 2022). Notably, because this survey was conducted on Facebook, respondents were unlikely to include people without access to digital technologies, likely affecting survey results.

3. Geographical inequality

There is a clear geographical inequality of vaccination coverage in Thailand, demonstrated by the fact that four of the poorest provinces reported that less than 60% of the population received the two-dose regimen,[19] while the national average for

[16] Other municipal and local governments outside Bangkok have their own channels for applying for or booking jab appointments (e.g. "Kan prom" for Kanchanaburi province, "Khonkaen prom" for Khonkaen, "Chiang rai ruam jai" for Chiangrai, "Gum pang wiang" for Chiangmai, "Vaccine covid talk" for Tak, etc.).

[17] Many companies provide vaccination appointments as a company benefit.

[18] See, e.g., iTAX (12 June 2021); PPTV (13 June 2021); BBC Thai (21 June 2021); The Matter (17 August 2021); Bangkok Biznews (13 June 2021).

[19] Namely Mae Hong Son, Yala, Pattani, and Narathiwat.

two-dose coverage was 78%, as of 10 February 2023 (DDC, 2023). This geographical inequality can be seen not only at the province level but also at several sub-province levels such as district and sub-district.

One of the earliest controversies around vaccine allocation concerned Buriram province in Thailand's northeast, a stronghold of Bhumjai Thai Party, an influential party in the government coalition. Anuthin Charnvirakul, the presiding party leader, was appointed Minister of Public Health in 2019, and was therefore responsible for the procurement and distribution of vaccines. Between July and August 2022, when Thailand's vaccine shortage was most acute amid the wave of Delta variant infections and deaths, the expedited vaccine allocation to Buriram province was a subject of public outcry. Thailand Development Research Institute (TDRI), one of Thailand's most respected think tanks, said pointedly in its July 2021 "performance review of Prayut 2 government: COVID-19 disease control and vaccine management" report:

> "*An important problem in the vaccine distribution is the lack of unity. Many political parties in the government coalition competed to manage vaccine distribution, leading to many different channels of vaccine appointment registration, such as "Mor Prom", social security, Thai Ruam Jai platform, and on-site registrations. These channels lack effective coordination. In addition, agencies that are allocated vaccines can also prioritize jabs for different target groups on their own. There is no mechanism in place to ensure that jabs will follow the priorities outlined in MOPH vaccination strategy.*
> *"As a result, vaccine distribution is distorted; it is not done in the order of priorities as set out in the national strategy. […] Buriram was the 11th most vaccinated province as of 7 July [2021], with 300,000 doses administered to 19% of total population of the province, even though Buriram is not a high infection province, not a major tourist destination, and is not listed on the list of provinces with the most urgent need for vaccines which the DDC announced in May [2021].*" (TRDI, 2021).

The DDC's daily vaccination data reveals that the geographical inequality in vaccine allocation persisted through 2022, and the DDC's stated distribution strategy of giving priority to provinces with high case or death numbers did not seem to be adhered to in practice. For example, DDC data as of February 2022 revealed that among the ten provinces with the highest death rates from COVID-19 (death as percentage of total province population), only five provinces reported at least 74% one-dose coverage (74% was the national average of one-dose coverage at that point). These were: Bangkok (123% one-dose vaccination rate), Samut Sakorn (98%), Samut Prakan (86%), Tak (77%) and Pathum Thani (86%). The other five provinces with the highest rates of death from COVID-19 reported one-dose coverage far below the national average: 59% in Samut Songkram, 55% in Pattani, 65% in Yala, 57% in Nakhon Nayok, and 59% in Nakhon Pathom (Achavanuntakul, 2022).

The fact that reported vaccine coverage for Bangkok exceeded 100% is another example of geographical inequality in Thailand. As of 15 December 2022, Bangkok reported 118% two-dose coverage and 127% one-dose coverage (DDC, 2022). This is because many people who got jabs in Bangkok were not Bangkok residents; they traveled far and wide across Thailand to queue up for vaccination at Bang Sue Grand Station, a large railroad station that was converted into the largest temporary vaccination facility in Bangkok. The station is under management of the Ministry of Transportation, whose current minister also comes from Bhumjai Thai Party (like the Minister of Public Health); this led many Thais to believe that, among the myriad channels, the surest way to get vaccinated was to register or queue up at Bang Sue Grand Station, since the Minister of Transportation probably had enough clout to secure a large number of vaccines for that location, and he would want to do so in order to boost the popularity of his own party. In the author's online survey of vaccination experience mentioned above, 179 respondents (29%) said they were not Bangkok residents but decided to travel to get jabs in Bangkok (Achavanuntakul, 2021).

The geographical inequality is not only observed in the government's vaccination drive; it is also prevalent in the distribution of Sinopharm and Moderna, two "alternative vaccines". As examined in Chapter 4, below, the Thai Red Cross bought 750,000 doses of Moderna from the Government Pharmaceutical Organization (GPO) and announced it would sell them to Provincial Administration Organizations (PAOs) at the price of THB1,300 per dose. The PAOs are the provincial governments, and they were allowed to procure COVID-19 with their own budgets after the CCSA relaxed rules in June 2021 (Prachachat, 2021). An investigation by Rocket Media Lab in July 2021 found that the PAOs that spent the most budget on procuring "alternative vaccines" were all wealthy provinces with significant reserves to spare. On the other end of the spectrum were PAOs of the poorest provinces — such as Mae Hong Son, Nakhon Phanom, and Nong Bua Lamphu — that put in very low or no orders for Moderna or Sinopharm vaccines because they had no money to spare. This means that the poorest populations in Thailand tended to have lower access to alternative vaccines than residents in richer provinces (or none at all), and therefore that the "alternative vaccine" scheme likely exacerbated rather than alleviated vaccine inequality in Thailand (Rocket Media Lab, 2021).

## 4. Class inequality

Thailand is one of the most unequal countries in the world (ASEAN Today, 2019), with a deep-rooted patronage system, and it was inevitable that vaccine distribution schemes would be gamed by those who were not in high-risk groups but had enough money and/or connections to jump the queue. The aforementioned TDRI report on COVID-19 vaccine management states flatly that:

> "*[…] jumping the queue to get vaccinated ahead of others is rampant, usually by using donations or personal connections with top executives of hospitals which received vaccine allotment. This led to the outcome that many of the elderly and 7-disease groups which are high-risk still have not received vaccines […] such a distorted vaccine distribution is likely one reason behind the high rates of severe infections and deaths of these two population groups, as can be seen from excess mortality rates of elderly population that rose very quickly […]*" (TDRI, 2021).

Disadvantaged groups such the poor also experienced more difficulties in getting access to vaccines, although the situation of the urban poor in Bangkok was worse than the rural poor, according to Sureerat Treemanka, expert on universal healthcare and ex-director of the National Health Security Office (NHSO), which administers Thailand's universal healthcare scheme. During COVID-19, Sureerat played a key role in assisting the coordination of health volunteers and civil society organizations with health officials.

Sureerat observed that the rural poor had better access to vaccines compared to the urban poor in Bangkok because: there are more vaccination locations in provinces outside Bangkok, there are over one million Village Health Volunteers nationwide who know everyone in their community, and there is a strong network of Subdistrict Health Promotion Hospitals. In contrast, at the beginning of the pandemic there were only a few health centers in Bangkok that were allocated vaccines from the DDC, although Bangkok has many health stations. This could be because Bangkok is very crowded; the population exceeds the capacity of health stations, which have only 1-2 nurses per station. In addition, the government did not design a proactive coordination mechanism to work with different agencies, nor did it launch a recruitment drive or ask assistance from civil society. This led to a situation where many of the homeless and people in slums lacked access to vaccines. Sureerat cited an example from one of her field trips to Bangkok slums to tell residents that they could get vaccinated at Bang Sue Grand Station: she said a common response was that the slum was located very far from that location, and they could not afford to pay THB400-600 to hire a bus or taxi to go there (Treemanka interview, 2022).

5. Legal status inequality

The fifth and final dimension of vaccine inequality observed in Thailand: non-Thai residents faced much more difficulty in accessing vaccines than Thai nationals. The DDC Director General announced in May 2021 that the national target of 70% vaccine coverage included all non-Thai residents, which he estimated to be three million people. He stressed that "Thailand follows international standards and prescriptions from medical experts; any criteria that is applied to Thai nationals will also be applied equally to foreigners without discrimination" (Prachachat, 2021).

However, in practice the vaccination of non-Thai residents lagged behind Thai nationals by a wide margin. DDC's Office of International Cooperation disclosed on 31 January 2022 that at that point 4.3 million COVID-19 vaccine doses had been administered to foreigners living in Thailand (this information is no longer available online as of December 2022). This number counts all doses, whether first, second, or booster. If one counts only the standard two-dose regimen, then only 1.82 million doses were administered as of 31 January 2022, covering about 60% of the DDC-estimated three million non-Thai residents. Since this figure is far less than the 75% two-dose national average at that time, this shows that the DDC's "no discrimination" announcement was not well implemented in practice.

Foreigners living in Thailand had to register online for vaccine appointments, similar to Thai nationals. However, they also faced additional requirements: they needed to have entered the country legally and to hold a valid passport or identification papers. This meant that approximately one million foreigners without identification papers or whose passports had expired were barred from vaccination in Thailand, contrary to the DDC's stated "no discrimination" policy (Wongsuban interview, 2022).

The main channels for foreigners' vaccine registration were Social Security offices, proactive vaccination drives in high-risk areas, and the "alternative vaccines" (Sinopharm and Moderna) described earlier in Chapter 3. Foreigners could also register for vaccines on a special website set up by the Ministry of Foreign Affairs (MOFA),[20] which opened for registration on 1 August 2021 (Bangkok Post, 2021). However, the MOFA website did not allow migrant workers from Laos, Myanmar, or Cambodia (totaling approximately two million) to register, since there was no option on the website to select their visa category (non-LA). Since most of these workers are unskilled laborers and homeworkers, this situation effectively forced their employers to seek alternative vaccines or other channels at their own expense if they were to provide for their workers.

Vaccine inequality in Thailand in these five dimensions would have been worse had it not been for the efforts of various volunteer groups and civil society organizations, which have long played a crucial role in helping vulnerable groups get access to healthcare. During COVID-19, their contributions were appreciated by the public despite getting no incentives or special assistance from the government. New volunteer groups such as "Zen dai" ("thread") were set up to assist the urban poor, who faced even greater difficulty during the pandemic.

[20] expatvac.consular.go.th

# PART IV: ON ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

Since COVID-19 was first detected in Thailand in 2020, there have been three concurrent initiatives to produce homegrown COVID-19 vaccines:

- HXP-GPOVac – non-replicating viral vector vaccine under development by the GPO.
- Baiya SARS-CoV Vax 1 – subunit vaccine under development by BaiyaPhytopharm, a clinical-stage biopharmaceutical company incubated by the CU Innovation Hub, Chulalongkorn University.
- ChulaCOV19 – mRNA vaccine under development by the Faculty of Medicine, Chulalongkorn University.

As of mid-February 2023, all three initiatives aimed to be used as booster dose. The GPO's HXP-GPOVac had registered the most progress, since it planned to complete Phase 3 trials by the end of January 2023 and estimated that it would receive Food and Drug Administration (FDA) approval by mid-2023 (BBC Thai, 2022; HFocus, 2022).

As for vaccine procurement, the Thai government announced its overall plans months ahead of time but changed these over time and invited intense public outcry and scrutiny between November 2020 and the middle of 2022 (Pongpipat interview, 2022). Reasons given for the decision to choose particular vaccine brands over others were inconsistent and questioned by many physicians, especially between November 2020 and August 2021, when Thailand faced the first two serious waves of COVID-19 infections and deaths, and there was a shortage of effective vaccines and uncertainty over vaccine delivery schedules. No details were ever made public on the actual procurement process for each brand.

The government's vaccine strategy has been roundly criticized since the beginning as seemingly motivated more by politics than by medical science. Various reasons were offered for the decisions to buy or not buy certain vaccine brands, and these reasons were later found to be half-truths, lies, or else inconsistent because they were not applied equally to all brands. For example:

*Inconsistency 1:* When asked by the public and medical professionals in January 2021 why the government did not procure mRNA vaccines, an influential advisor to the CCSA claimed, "the government has tried its best in procuring mRNA vaccines, but the market belongs to the sellers; even if you have money, you can't buy it." (Bangkok Biznews, 2021). However, it was revealed during the censure debate in September 2021 that Pfizer approached the DDC and the National Vaccine Institute in July 2021, actively asking Thailand's interest in reserving its mRNA vaccine, and warned again in



November 2021 that Thailand should decide before it was too late. The government never responded to the company's request (Limcharoenrat, 2021).

*Inconsistency 2:* When asked in early July 2021 why Thailand did not join GAVI's COVAX program, the Prime Minister responded that it was because Thailand would have to pay up front before knowing if the vaccine would be effective (i.e., an advance market commitment), and the government could not do this under the procurement law (Prime Minister PR, 2021). However, it later became apparent that the government paid AstraZeneca as much as 60% up front without the certainty of vaccine delivery, and that the MOPH issued a ministerial decree under the National Vaccine Security Act in October 2021 to allow this, suggesting the Prime Minister's reason was merely an excuse (Achavanutakul, 2021). In addition, the opposition party revealed during the censure debate in September 2021 that the US and France declared their intention to donate vaccines to Thailand but would donate via COVAX. However, Thailand's refusal to join this program made it impossible to accept these vaccines (Limcharoenrat, 2021).

*Inconsistency 3:* When queried in the parliament in February 2021 on the tardiness of the vaccine procurement strategy, one of the Minister of Public Health's responses was, "some countries received vaccines because they had the status of being testing grounds for vaccine manufacturers, not sellers. They have enough patients for testing purposes, but it never occurred to me to allow Thai people to become test subjects." (PPTV, 2021). However, less than one year later, Thailand effectively became one of the world's foremost testing grounds for COVID-19 vaccines by using mix-and-match strategies that were untested, or specifically recommended against; it mixed one dose of one vaccine brand with doses of one or multiple other brands for a single patient, despite warnings against this from the WHO's top scientist (Reuters, 2021). The author counted no less than 25 mix-and-match versions in Thailand, 16 of which were not seen in any other country (Achavanuntakul, 2022).

The timeline of different COVID-19 vaccines in Thailand is also telling in its logical inexplicability. Sinopharm, an "alternative vaccine" outside the government program, was imported by Chulabhorn Royal Academy (CRA), a public institution under the patronage of HRH Princess Chulabhorn, the younger sister of King Rama X. Sinopharm had the shortest time frame between the beginning of negotiations, securing approval from Thailand's FDA, and signing of contract: all of this happened in the space of only two months, between April and May 2021 (Thai Enquirer, 2021).

AstraZeneca and Sinovac, the main vaccine brands used in Thailand and the first to arrive in the country, had the next shortest time frame between when the government began negotiations and the date it signed the first contract: less than three months. The Johnson & Johnson vaccine, which appeared as five million doses in the CCSA's "100 million doses" vaccine acquisition plan, was quietly dropped while the Minister of Public Health unconvincingly said in June 2021 that he "could not contact the manufacturer" to cement the deal (The Standard, 2021).

In contrast, both mRNA vaccines — Moderna and Pfizer-BioNTech — faced the longest time frame between the first negotiations and contract signing date: over eight

months in both cases. Moderna was never part of the government's official vaccine acquisition plan, and it became only an "alternative vaccine" outside the government's vaccination program, meaning that it was imported by private hospitals and people had to buy it at their own expense.

It is noteworthy that Pfizer-BioNTech, an mRNA vaccine, which has one of the world's most publicly disclosed efficacy evidence both in laboratory and real-world settings (Zheng et. al., 2022), and was the first COVID-19 vaccine to be approved by the WHO, was approved by Thailand's FDA for emergency use only in June 2021, six months after the WHO approval. This is the complete opposite case of China-made Sinovac, which received approval from Thai FDA four months before WHO approval (Thai FDA, 2021). These disparate timelines gave rise to a popular opinion that the Thai FDA acted as a tool for political expediency of the government, instead of a neutral organization with its decisions rooted in science.

As mentioned in Chapter 1, vaccine delays and uncertainties were most acute in July and August 2021, when Thailand's healthcare system was stretched to its limits amid waves of the Delta variant and news of COVID-19 patients dying in the streets, at home, or while waiting for hospital beds became common. Healthcare professionals, most of whom at that point had received two doses of Sinovac or AstraZeneca vaccines, clamored for the government to expedite the imports of mRNA vaccines for use as booster doses. The DDC finally signed a purchase agreement for 20 million doses of the Pfizer mRNA vaccine on 20 July 2021 (BBC Thai, 2021), and five days later the GPO signed the first purchase order for five million doses of the Moderna mRNA vaccine on behalf of private hospitals (see details in Case #4, later in this chapter).

Between 2020 and 2022, there were four cases relating to Thailand's vaccine acquisition strategy that became the focus of intense public scrutiny and debates, as well as censure debate in the parliament. These cases highlight the issues of conflicts of interest, lack of transparency, and lack of accountability in vaccine acquisition and management in Thailand.

Case 1: The politics and non-transparency of Sinovac

Between January 2020 and the end of 2022, Thailand received at least 3.4 million doses of inactivated virus Sinopharm and Sinovac as donations from the Chinese government (Bridge Consulting, 2022), and the government approved a total of THB15,775 million for the acquisition of 31.4 million Sinovac vaccine doses, totaling no fewer than 18 orders (cabinet resolutions, 2020-2021). Sinovac was also the first COVID-19 vaccine brand that was approved for use by the Thai FDA, and the first to arrive in the country.

When the CCSA unveiled the updated version of Thailand's 2021 and 2022 vaccine acquisition plans on 18 June 2021, medical professionals immediately questioned the wisdom of including 28 million more doses of Sinovac in the 2022 acquisition plan — the figure represented more than 50% of the total planned 50 million doses (Uaprasert, 2021). Combined with an existing 19.5 million doses already in the 2021 acquisition plan, this meant that Thailand planned to use as many as 47.5 million



doses of Sinovac, or almost one third of the government's overall 150 million-dose target. Many medical professionals called this plan "politically motivated" and "not based on science". One medical specialist even called the CCSA's announced 2022 vaccine acquisition plan the "worst in the world" and said it "runs in the opposite direction of every other country" (Uaprasert, 2021), because it relies on Sinovac instead of mRNA vaccines, which are proven to be more effective against the variants of concern.

The CCSA never officially changed the 2022 acquisition plan, but an unofficial change was revealed in various Cabinet resolutions showing that the government approved a total of 31.4 million Sinovac doses in 2021 (of which 26.5 million, or 84%, were administered as of 15 December 2022). There were no new Sinovac orders placed after the 7 September 2021 Cabinet resolution, which occurred one week after the 31 August 2021 censure debate in which an MP from an opposition party alleged that there was a "discrepancy" of over THB1.6 billion between the budget for Sinovac procurement that the Cabinet approved and the actual price paid (Workpoint Today, 2021).

There are several other cases of preferential treatment for Sinovac that the government never coherently explained. For example, the original MOPH guidance for health workers to receive an mRNA booster dose was restricted only to those who first received two doses of Sinovac (see details in Case #3, later in this chapter).

Case 2: Favoritism for AstraZeneca

On 17 January 2021, former Thai opposition leader Thanathorn Juangroongruangkit ran a live broadcast in which he criticized the government's first public COVID-19 vaccine strategy for "putting a bid on only one horse" in an uncertain vaccine race, since the government's first strategy mostly relied on domestic production of AstraZeneca by Siam Bioscience, a biopharmaceutical company owned by King Rama X. Siam Bioscience is AstraZeneca's sole contract manufacturer of its COVID-19 vaccine in Southeast Asia. (Nikkei Asia 2021). The government's original plan, which Thanathorn criticized, was to procure 26 million doses of AstraZeneca (40% of total); another 40% would come from the COVAX program, which Thailand ultimately never joined, and the remaining 20% (or two million doses) would be from Sinovac.

Thanathorn also alleged that Siam Bioscience, which had never manufactured vaccines before, was given an unfair advantage over other biotech companies with more experience (Reuters, 2021). The Ministry of Digital Economy and Society filed charges of lese majeste and violation of the Computer Crime Act against Thanathorn two days after his broadcast (The Nation, 2021). On 25 January 2021, one week after Thanathorn made the allegations, Siam Bioscience sent a press release to the media that clarified its selection process and credentials.

The situation of vaccine shortage in Thailand improved markedly only in September, the month that AstraZeneca was able to deliver its first eight million doses, after the government agreed to buy 60 million more AstraZeneca doses for 2022 at the increased price of USD8.86 per dose (higher than the USD5 per dose price for 2021

contracts) (HFocus, 2021). In the same month, the first two million doses of the Pfizer mRNA vaccine were also delivered to Thailand.

In July 2021, investigative news outfit Isra News published a letter from AstraZeneca from MOPH, dated 25 June 2021, revealing that the company was prepared to deliver about 5-6 million vaccine doses per month (Isra News, 2021). AstraZeneca's letter immediately called into question the DDC's claim that Thailand would receive "10 million doses of AstraZeneca" per month between July and November 2021, and the "10 million per month" figure in the DDC's vaccine acquisition plan since April 2021.

In the censure debate on 1 September 2021, the opposition party revealed that the first contract for 26 million doses did not contain any delivery schedules for the vaccines — not even a tentative schedule (Prachatai, 2021). The author's analysis further reveals that the contract also does not contain a termination date, which means that AstraZeneca could not be held legally liable even if it delivers vaccines months or even years behind the government's vaccination schedule (Achavanuntakul, 2021).

Case 3: Criteria for donated mRNA vaccine that favored Sinovac

The first mRNA vaccines that arrived in Thailand were not part of the government's vaccine acquisition strategy, but were rather 1.5 million doses of Pfizer mRNA vaccine donated by the US (U.S. Embassy, 2021). The leaked criteria for the allocation of these 1.5 million doses, from an internal meeting of a DDC committee on 30 July 2021, revealed that only health workers who received two Sinovac doses would be qualified to receive Pfizer in this lot as a booster dose. All other combinations, including health workers who never received any vaccines, those who received one or two doses of AstraZeneca, those who received AstraZeneca as a booster dose, or those who received only one dose of Sinovac, were not qualified (Pholoung, 2021).

After many protests and demands for a scientific explanation for these criteria, including several viral hashtags on Twitter, the MOPH relented and announced new, more sensible criteria on 2 August 2021, under which healthcare professionals without two previous doses of Sinovac could get Pfizer shots (BBC Thai, 2021).

Case 4: Moderna – an mRNA vaccine that people have to buy

Since January 2021, when there was certainty for only two vaccine brands (Sinovac and AstraZeneca) in the government's vaccine acquisition plan, the private sector had been asking for the government's permission to procure vaccines on its own. In April 2021, the Prime Minister used his authority under the Emergency Decree to set up a special working group on vaccine acquisition, which comprises 18 members: from the National Vaccine Institute, the MOPH, the GPO, and FDA; the Director of Private Hospitals Association; and other experts (HSRI, 2021).

After the government announced its preference that the "alternative vaccine" schemes of the private sector focus on vaccine brands that the government was not pursuing, the GPO agreed to act as a government party to the contract with Moderna on behalf



of private hospitals. In the meantime, CRA concluded a deal with Sinopharm to sell its vaccines in Thailand, and subsequently signed a contract in September 2021 to buy eight million doses of Moderna vaccines (Chulabhorn Royal Academy, 2021), for delivery in 2022.

The upshot of all these activities is that Moderna became the "alternative vaccine" with varying prices for the same vaccine: those who bought the vaccine from private hospitals had to pay THB1,650 per dose, while those who bought it from public hospitals had to pay only THB1,500 per dose (though both public and private hospitals bought Moderna from the GPO, which charged them THB1,100 per dose). Meanwhile, the Thai Red Cross, which bought one million doses from the GPO (amid public outcry that the Thai Red Cross was "jumping the line"), sold its quota of Moderna vaccines to 38 PAOs at THB1,300 per dose for free administration to the residents of those provinces. Lastly, CRA announced that it would sell its eight million doses of Moderna at THB555 per half dose, or THB1,110 per dose (Achavanuntakul, 2021).

# PART V: CONCLUSION

Thailand's COVID-19 vaccination coverage got off to a relatively slow start — there had been three infection outbreaks in the country before the national vaccination drive kicked off in June 2021. Thailand's two-dose coverage stalled at around 77.6%, while booster dose coverage stalled at 38.5%, from July 2022, approximately 13 months after the start of the nationwide drive (DDC, 2022). These figures also obscure significant vaccine inequality covering five dimensions, as described in the report: target group, geographical, technological, class, and legal status inequalities. During the first few months of the vaccination drive, between June and August 2021, there were numerous news reports of tens of thousands of people crowding in queues for hours at Bang Sue Grand Station, and many doctors said a considerable number of people got infected with COVID-19 while waiting to get vaccinated.

Some dimensions of vaccine inequality, e.g. class or legal status, could be seen as emblematic of a deep-rooted culture of privilege and prejudice in Thai society, but dimensions such as technological inequality were unnecessary novelties: The Thai government did not have to require people to register online or through smartphone applications for jab appointments. In many countries, COVID-19 vaccination was freely available to everyone on a walk-in basis and the jabs were administered at drug stores; people did not have to go to hospitals or government health centers to get their jabs.

The government's vaccine acquisition and distribution by brand was plagued with public outcry over the appearance of favoritism for inactivated virus vaccines from China (Sinovac and Sinopharm) and viral vector vaccines produced under contract by the monarch's own company (AstraZeneca). The contract for acquisition of mRNA vaccines was signed only in July 2021, after months of public campaigns with demands to the government, including a Change.org "import mRNA" campaign set up by a network of healthcare professionals that gathered over 215,000 signatures (BBC Thai, 2021).

For future pandemics, the government would do well to increase transparency and open crucial health decisions, including vaccine procurement, to participation from the public and the community of healthcare professionals from the beginning. Enhanced collaboration with civil society organizations, especially in urban poor areas, could be much better designed. The distribution of vaccines should be done as widely as possible, including through drug stores as in other countries. Lastly, the use of emergency-decree powers, which both severely limits accountability and possibly makes the government less mindful of public demands and outcries, should be chosen only as a last resort.



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VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

## ABOUT THE RESEARCHER

Sarinee Achavanuntakul is a writer and sustainability researcher based in Thailand. Since January 2021, as a columnist and interested citizen, she has been closely following the issue of COVID-19 vaccine procurement and allocation in Thailand. She has written over 20 articles related to this issue on The Momentum, an online Thai media, and over 100 posts on her personal Facebook page. She is co-founder of Thai Netizen Network, ThaiPublica, Salt Publishing, and Sal Forest Co. Ltd. She currently serves as Managing Director, Knowledge Development, of Sal Forest Co. Ltd., and regularly writes about sustainability and governance issues in various online media.


# UNPACKING THE COVID-19 VACCINE TRANSPARENCY AND ACCOUNTABILITY IN TIMOR-LESTE

CELSO DA FONSECA

VACCINE TRANSPARENCY AND ACCOUNTABILITY

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# PART I: INTRODUCTION

Timor-Leste recorded its first positive case of COVID-19 on 21 March 2020 (Government of Timor-Leste, 2020). On 28 March 2020, the government declared a state of emergency that included the implementation of a social distancing policy, limitations on the movement of people within the country, and restrictions on the arrival of people from abroad through policies on mandatory confinement and sanitary fences (COVID-19 Timor-Leste Dashboard, 2021). Since then, people in Timor-Leste started to fear the virus because of the way it quickly spread, and the danger it posed to human lives.

The WHO said in September 2022 that there had been 23,397 confirmed COVID-19 cases, including 138 deaths, in Timor-Leste (WHO, 2022).[1] Three types of vaccine have been approved by the Government of Timor-Leste and made available by donors: Pfizer-BioNTech (Comirnaty), Oxford-AstraZeneca (Vaxzevria), and Sinovac (CoronaVac).[2] Vaccine support was provided by major donor countries such as Australia, the US, and China, as well as multilateral funding from the European Union (EU), Japan, Portugal, and South Korea (Tatoli, 2022). In addition, vaccine aid was provided via the United Nations Children's Fund (UNICEF), the WHO, and the COVAX facility. The government also received foreign aid in the form of medical equipment and personal protective equipment (PPE). The AstraZeneca vaccine was most widely used in Timor-Leste, while the Sinovac vaccine was deployed only in Dili, the capital city (WHO, 2021). The Pfizer vaccine was used mostly for children aged 12-18 and as boosters. Timor-Leste accessed the COVID-19 vaccine through the COVAX facility and direct and multilateral funding from donor countries. In April 2021, the government received its first round of pandemic-related vaccine assistance with an AstraZeneca shipment from the COVAX facility. A few months later, on 5 June 2021, the first batch of Sinovac vaccine support from China arrived in Dili by request of the Timor-Leste government. Assistance from China also included syringes, ventilators, and oxygen concentrators (Embassy of the People's Republic of China in the Democratic Republic of Timor-Leste, 2021). In October 2021, Timor-Leste also received Pfizer vaccine assistance from the US Government (UNICEF, 2021).

The vaccine rollout started in 2021. Vaccine distribution was based on the principles of equality, equity, free cost, and accountability, as highlighted in the government's vaccine plan. Indeed, by September 2022, Timor-Leste had managed to distribute 1,797,994 doses of COVID-19 vaccines, which translates to almost 89% coverage of the entire population with first or second doses (WHO, 2022).[3] As of 13 February 2023, when this report was written, Timor-Leste had made good progress, with 2,011,703 doses delivered to around 798,020 people, meaning that around 60.53% of the population had received two doses (WHO, 2023). However, there has yet to be detailed information about the three types of COVID-19 vaccines used.

Although there was no detailed information about vaccine inoculation progress that included vaccine type, the government reported that the majority of the population, including migrant,[4] stateless, and high-risk vulnerable people like persons with disabilities and those with chronic diseases on the priority list, had accessed first and second doses of Sinovac (RTTL, 2021).

The significant development challenges and poor health facilities[5] in Timor-Leste put this tiny nation at risk of ineffective response to global pandemic health threats. In light of this, the United Nations (UN) and donor countries provided the government with multiple sources of funding, through multilateral and bilateral schemes. Although large donor countries such as China and the US granted humanitarian support to Timor-Leste, in this case in the form of PPE and COVID-19 vaccines, it is essential to note that there were some negative reactions from the community regarding this external assistance, especially to AstraZeneca and Sinovac, for various reasons. For example, when Timor-Leste received PPE and the Sinovac vaccine shipment from China, the government urged the public not to react negatively to China's assistance. When the Sinovac vaccine became available in Timor-Leste, there were also some positive reactions, both from individuals and from groups including political parties. Many people were willing to accept vaccine products from China. Furthermore, people were prone to absorbing misguided information and spreading hoaxes, discriminatory information, and distrust or acting negatively (Palacio da Sinzas Facebook Page, 2020). With this in mind, the vaccine campaign aimed to combat misinformation and ensure public trust in the COVID-19 vaccine.

[1] The current population of Timor-Leste is 1,351,349 based on projections of the latest United Nations data. For detailed information see https://worldpopulationreview.com/countries/timor-leste-population.

[2] Data released by COVID-19 Track Vaccines, last update on 2 December 2022, https://covid19.trackvaccines.org/country/timor-leste/

[3] In December 2022, when this report was written, there was no updated data about COVID-19 vaccines released by the government of Timor-Leste. This data was compiled from the WHO webpage https://www.who.int/timorleste/news/detail/14-09-2022-in-timor-leste-an-integrated-campaign-aims-to-pull-up-routine-immunization-and-covid-19-vaccinations.

[4] The government announced that Sinovac could also be accessed by foreigners, including Chinese people who wanted to get the Sinovac vaccine. RTTL ONLINE LIVE STREAMING (2021) https://www.youtube.com/watch?v=tSiZOyLY_ZE

[5] Timor-Leste is a small country with a small population. It became an independent nation in 2002. It is undeniable that most of the people of Timor-Leste, especially those in rural areas, have inadequate access to health services due to the poor conditions of health facilities, including a lack of medical equipment, access to running water, reliable electricity, and medicines. This situation has put healthcare in Timor-Leste in a fragile situation.

## 1.2. Research methodology

This study used a qualitative method and divided data collection into two parts. First, primary data were collected through interviews with key persons from government institutions, representatives from NGOs, journalists, and academics between November and December 2022 (see Table 1). Secondary data were collected by gathering information from online sources, including media platforms, official government websites, and UN agency reports.

**Table 1: Key informant interview data**

| Name | Affiliation | Method of Interview | Date of Interview |
|---|---|---|---|
| Interviewee 1 | Staff member, Asosiasaun Defisiensia Timor-Leste (ADTL) | In-person | 18 Nov 2022 |
| Interviewee 2 | Staff member and founder, Arquires (LGBTQ Organization) | In-person | 19 Nov 2022 |
| Interviewee 3 | Lecturer, University of Peace (UNPAZ) | In-person | 23 Dec 2022 |
| Interviewee 4 | Spokesperson and Health Advisor, Inter-Ministerial Committee for Vaccine Deployment, Office of the Prime Minister | In-person | 02 Dec 2022 |
| Interviewee 5 | National Director, Ministry of Social Solidarity and Inclusion (MSSI) | In-person | 05 Dec 2022 |
| Interviewee 6 | Former, Integrated Crisis Management Center (CIGC) | In-person | 12 Dec 2022 |
| Interviewee 7 | Coordinator: AJAR | In-person | 03 Mar 2023 |
| Interviewee 8 | Researcher, Lao Hamutuk (national NGO) | In-person | 03 Mar 2023 |
| Interviewee 9 | Editor in Chief, G-NEWS | In-person | 03 Mar 2023 |
| Interviewee 10 | Executive Director, Fundação Mahein | In-person | 04 Mar 2023 |



# PART II: VACCINE INFORMATION AND ACCESSIBILITY

## 2.1. Vaccine information dissemination methods

Increased vaccine information and accessibility is considered to be the best way to ensure consent on vaccine inoculation. "Understanding the cause and effect of the vaccine is a fundamental right for all. Relevant information on the COVID-19 pandemic and response should reach all people, without exception" (OHCHR, 2020). In light of this, the Timor-Leste government played a vital role in ensuring the population could access information about the pandemic and all available COVID-19 vaccines. Furthermore, the government was also responsible for guaranteeing that all people, including those living in remote areas and those from marginalized groups, such as people with disabilities, could receive the COVID-19 vaccination and access the relevant information.

On 12 January 2021, the government established an Inter-Ministerial Coordination Committee, which aimed to "prevent and control" COVID-19 in Timor-Leste. Furthermore, the Prime Minister issued Dispatch No. 003/PM/I/2021 to develop a national vaccination plan. This was later supplemented with Dispatch No. 025/PM/III/2021 to create a technical group to coordinate the execution of the vaccination program. The technical group is coordinated by the inter-ministerial committee, and composed of representatives of the state administration, the armed forces, and various state agencies. In relation to this, on 21 May 2021, the government prepared the national strategy for the vaccination campaign.

The first dispatch called for a communication plan that allowed the inter-ministerial committee to accurately and transparently provide the public with vaccine information, including specific information on the vaccination process in Timor-Leste. It also ensured the dissemination of this information to international agencies and civil society organizations (Journal da Republica, 2021). One of the state's tasks was to ensure that all citizens, including marginalized groups, were informed about COVID-19 vaccines. In light of this, the technical group, largely composed of healthcare professionals, was equipped with sufficient basic knowledge about the vaccine to run a socialization program together with other relevant institutions (Interviewee 5, Personal Communication, 12 December 2022).

The Government of Timor-Leste provided information in two forms: via various media channels and by organizing face-to-face meetings in remote areas in Timor-Leste. Information on the COVID-19 vaccine was provided by the Ministry of Health (MoH) with collaboration from the WHO. The national media channels used by the government were through the national television and radio broadcaster, Radio Televizaun Timor-Leste (RTTL), including through its national and community radio and online platforms. The government also used approximately 17 community radio

stations operating in the country's 13 districts to spread information (Mendel, 2011).

The government regularly updated vaccine distribution information through its COVID-19 Timor-Leste Dashboard,[6] and on the official MoH website.[7] All the information about the number of COVID-19 cases, recoveries and deaths, and vaccine inoculation statistics, including number and type administered, were compiled in a two-language format (English and Tetum) on the WHO - Timor-Leste webpage, which was updated 2-3 times per month. Announcements regarding vaccine distribution policy were made available on the official government webpage.

Similarly, other private television broadcasters such as GMN TV and Televizaun Edukasaun (TVE) — which serve some remote areas of the country — also provided some vaccine-related information via a program called "Statistika Vasina Iha Timor-Leste". In terms of online platforms, information was disseminated through social media, on YouTube, on the MoH Facebook page, and elsewhere. All of this information was also available on live stream television.

Information was also delivered by the government in national print media, via three prominent daily newspapers: Timor Post, Suara Timor Lorosae (STL), and Diario Nacional. UN agencies like UNICEF and the WHO also raised awareness of COVID-19 prevention on television, community radio, and online media like YouTube (COVID-19 Dashboard Timor-Leste, 2021).

The UN's Socio-Economic Impact Assessment of COVID-19 in Timor-Leste (2021) revealed that access to information related to COVID-19 and vaccines was mostly gained through national television. The most common source was television (government communication) (23.6% of households), followed by official government web pages (15.4%) and Internet/social media (14.7%).

Local governments also played a role through their local channels by conveying information about government policies related to COVID-19. In April 2021, the Office of the General Directorate of Rural Development, under the Ministry of State Administration, initiated a new policy to involve municipalities, administrative posts, and village administrations in conducting COVID-19 awareness campaigns. This policy was designed to coordinate and guide all relevant entities to disseminate information about the state of emergency, sanitary fences, and the implementation of other prevention and mitigation measures to combat the outbreak.

[6] Available at https://covid19.gov.tl/faq/

[7] Available at https://www.ms.gov.tl/en



## 2.2. Limitations to vaccine information dissemination

Although vaccine information was disseminated through the various media channels mentioned above, access to information through all of these platforms remains a challenge to much of the population. Many Timorese households do not have Internet access. Internet penetration in 2021 was below 50%.[8] Furthermore, in rural areas, households do not have access to national television.[9] According to the Timor-Leste Demographic and Health Survey (2016), 84% of households in Timor-Leste owned a mobile phone, but fewer households owned a television (40%) or radio (25%). Due to limitations to Internet connectivity, access to information was limited, especially in rural areas.

In this context, people in remote areas, especially marginalized groups, still face barriers to accessing information. Nevertheless, there was a positive step from the government to provide inclusive access to information for people with disabilities. On 7 April 2020, the government began including sign language interpretation in its TVTL broadcasts (The Dili Weekly, 2020). This was a crucial achievement by the Government of Timor-Leste to allow persons with hearing impairment to access COVID-19 vaccine information. However, the government also recognized the limitations to this move: a significant number of persons with hearing impairment cannot use sign language in Timor-Leste because sign language is yet to be developed, unified, and introduced into the national educational curriculum (The Dili Weekly, 2019). Furthermore, according to national statistical data, only 25% of hearing-impaired children attend school (TATOLI, 2020); this is a major barrier to using sign language for disseminating information.

Persons with disabilities, such as those with hearing and visual impairments, who live in urban areas have more chances to access information, but those living in municipalities (i.e., rural areas) face communication barriers to accessing information and, in this regard, they remain excluded from access to COVID-19 vaccines. One of the staff members from the Timor-Leste Disability Association (ADTL) stated that people with disabilities do not have sufficient access to information about COVID-19, including information about prevention, social distancing, and vaccines (Interviewee 1, personal communication, 18 November 2022).

The UN report (2021) indicated that as of November 2021 nearly 60% of households still needed more precise information on COVID-19 vaccines, particularly to know how the vaccines work. It also reported that the most socially vulnerable and the poorest households outside of Dili were lacking in terms of getting information from television

[8] According to the Digital 2021 Timor-Leste report (2021), Internet penetration in Timor-Leste reached 45.1% and there were around 599,700 Internet users in Timor-Leste in January 2021. https://datareportal.com/reports/digital-2021-timor-leste

[9] The Government of Timor-Leste acknowledged that access to national television, print media, and other electronic and Internet platforms remain challenges for many rural communities in suco (village) areas. https://independente.tl/en/national/timor-leste-says-it-supports-rural-sucos-in-strengthening-management-of-media

and Internet or social media; they relied on word of mouth more than those from the least vulnerable and wealthier groups in Dili.

Although the government made clear efforts to ensure Timorese citizens were able to receive vaccines, there was vaccine hesitancy in the community for a number of reasons. There was a lack of information about vaccine efficiency, misinformation and some hoax information spread on social media about the quality and efficacy of the vaccine, and some people believed that the vaccine could lead to negative health side effects. As a result, some refused to accept the vaccine, both in Dili and in the municipalities. Indeed, the Timorese community outside of the Dili area were deeply fearful of and concerned about potential negative "health side effects and death or serious illness from the vaccine" (UN report, 2021). This also made it harder for people to choose which vaccine they preferred to take.

Local governments played a role in mitigating and countering false information and hoaxes that were circulated at the municipality level (Timor-Leste Government, 2021). Although the Government of Timor-Leste also made efforts to communicate the usefulness and function of vaccines to remedy this situation, high public distrust of vaccines remained, and roughly a quarter of the population was not vaccinated by August 2021 (Jornal Bisnis Timor, 2021). In addition, one of the key informants, who formed the Integrated Crisis Management Center, acknowledged that there was "fear and traumatic" feeling in communities; they refused to get the vaccine because they did not have faith in the vaccine development process, which was very quick, despite vaccine trials normally taking five years and requiring examination to determine quality and efficacy (Interviewee 6, personal communication, 12 December 2022).

The government recognized that "information on social media often changes people's opinions and makes them fearful to the point they avoid health centers in order not to receive the vaccine, which also impacts access to health services in a wider sense" (Ministry of Justice, 2021). In one of the interviews for this research, the respondent revealed, "During the distribution of the COVID-19 vaccine, I observed that the information provided by the Timorese government through healthcare personnel from the Ministry of Health (MoH) did not provide clear information. That is why the community, including students, was afraid to get vaccinated. Because some of the information was spread to the public that people could die after getting the vaccine" (Interviewee, 3, personal communication, 23 December 2022).

A further issue is a lack of vaccine confidence for socio-cultural reasons. Many communities in Timor-Leste still hold animist beliefs and perform rituals like the ceremonial killing of a rooster or pig to get protection from danger and reading the animal's internal organs to predict the future. These rituals were also used to ward off the spread of COVID-19.  In early March 2020, before the COVID-19 outbreak started, members of the Government of Timor-Leste, as well as the police and armed forces, organized a ritual ceremony together with community clan leaders and local people in Dili in which they sacrificed chickens and pigs "to repel coronavirus". After the event, a clan leader stated that he felt the ceremony had gone "well" as the chicken liver gave no indication that COVID-19 would attack Timor-Leste (Tatoli, 2020).



Prominent figures also made unhelpful statements that affected public confidence. For example, on 24 March 2020, a commander of the National Police of Timor-Leste (PNTL) made a controversial statement that "the COVID-19 virus was just a WHO project" (STL News, 2020). In light of these rumors, civil society organizations in Timor-Leste recognized it was essential to take part in information dissemination, not only by performing a social control role but also by becoming a liaison between the public and the government. Forum Organizasaun Naun-Govermental Timor-Leste (FONGTIL), an umbrella organization for local, national, and international NGOs in Timor-Leste, played a particularly active role here.

In rural areas, communities faced some difficulties accessing COVID-19-related information because of limitations to the government vaccine committee team's work on COVID-19 management in the field (Interviewee 4, personal communication, 12 December 2022). Some people rejected the AstraZeneca vaccine because there was a controversial statement from the Australian government on this vaccine, and others rejected Sinovac because it was not recognized by the countries to which they intended to travel.

A further concern is the inconsistency and unreliability of the government in publishing COVID-19 vaccine information regularly and openly to the general public. As of February 2023, it remained a challenge to access up-to-date information on the number of people who had received the vaccine and the type of vaccine used. One of the key informants, who is a local journalist and a former TVTL reporter, highlighted that,

> "*The government has failed to provide regular information about COVID-19 situation, and the information to the public has been stopped without any reason. TV report program which was regularly used to disseminate about COVID-19 cases, is no longer continuing to apply. This seems, COVID-19 just like a project that the government do not continue in 2023, when the state emergency and sanitary fence is over. However, disseminating vaccine inoculation and COVID-19 vaccination progress to the public is more crucial to ensure rights to access to information*" (Interviewee 9, personal communication, 3 March 2023).

Similarly, COVID-19 vaccination progress has not been updated since June 2022 on the government's official website, the MoH website and Facebook page, and the Timor-Leste COVID-19 Dashboard. There is no clear reason for this; indeed, the government seems to have failed to ensure access to information for the public, despite it being one of the vital requirements of good governance through transparency and accountability in Timor-Leste.

# PART III: ENSURING VACCINE EQUITY

In order to ensure COVID-19 vaccine equity in Timor-Leste, it was crucial to engage with multilateral partners like the COVAX facility, which is co-led by Gavi (the Vaccine Alliance), the WHO, and the Coalition for Epidemic Preparedness Innovations (CEPI), with UNICEF as the key implementing partner.

Before the COVID-19 vaccine was distributed, the Government of Timor-Leste's initial preparatory actions included providing training to health workers and readying logistics, including ensuring there were vaccine freezers capable of storage at the recommended temperatures. Logistics issues were a significant challenge for the Servico Autonomo de Medicamentos e Equipamentos de Saude (SAMES) — Timor-Leste's central medical storage facility. When Timor-Leste received its first COVID-19 vaccine shipment from the COVAX facility on 4 April 2021 (Timor-Leste Government, 2021), this coincided with a tremendous flood in Timor-Leste caused by Severe Tropical Cyclone Seroja, which had a direct impact on the electricity power supply (STL News, 2021). Despite these challenges, the government was able to collaborate successfully with UNICEF and an adequate freezer was prepared. Logistical preparation, including electrical power supply, is crucial to vaccine storage. When the first vaccine (AstraZeneca) arrived in Dili, it was immediately taken to the SAMES warehouse for storage at the temperature recommended by the WHO. The government's ability to do so ensured public trust in the good management of the vaccine (Interviewee 5, personal communication, 15 December 2022).

The national government collaborated with local government officials to distribute vaccines in remote areas and convince the population to receive them. On 7 April 2021, the Eighth Constitutional Government (VIII Governu Konstitutional) of Timor-Leste kicked off its COVID-19 vaccination campaign, which included a strategy to increase the availability and distribution of vaccines and an intensive national vaccination awareness campaign (UNICEF, 2021). The government involved the State Secretariat, ministers, directors, government agencies, and municipal and other sub-district leaders in directly carrying out this campaign (Government of Timor-Leste, 2021). When implementing the vaccine campaign and vaccination distribution policy, the Government of Timor-Leste also used an entertainment-education approach (J Centro, 2021); public figures, such as national artists, were present in every vaccination campaign activity.

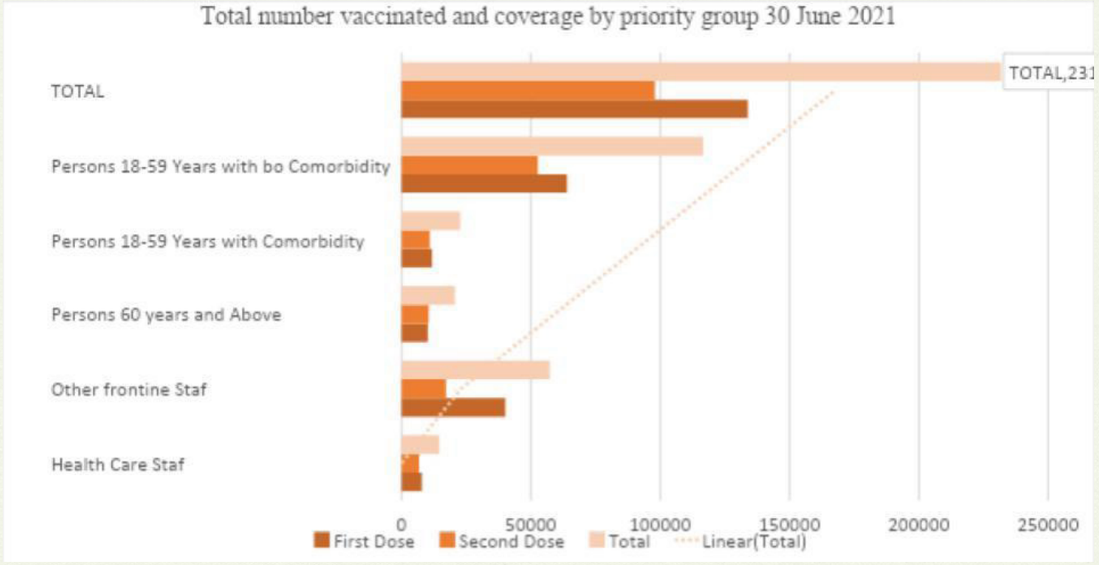
Regarding equity in COVID-19 vaccine distribution, along with dispatch No. 003/PM/I/2021 for the Interministerial Commission for the Elaboration and Coordination of the Implementation of the Vaccination Plan against COVID-19, Government Resolution No. 62 / 2021 of 21 May 2021 was established to set the guidelines and mechanisms of the vaccination campaign, including priority groups. As per government policy, priority vaccination groupings were divided into three stages. The first stage targeted frontline workers working in quarantine facilities, airports, and border areas, and people with chronic diseases. The second stage targeted people over the age of 60, religious



leaders, teachers, healthcare professionals, government members and all persons with disabilities. The third stage, corresponding to the remaining 80% of the population, did not have specific targets (WHO Timor-Leste, 2021).

Table 2 illustrates that the government delivered on its plan to target 20% of vaccine doses from the COVAX facility to frontline workers and those at high risk, including persons with disabilities.

**Table 2: COVID-19 vaccine doses administered among priority groups by first and second doses**




*Source: WHO Timor-Leste Online: Total number vaccinated and coverage by priority group 30 June 2021, https://cdn.who.int/media/docs/default-source/searo/timor-leste/tls-covid19-sitrep-106-eng-30062021.pdf?sfvrsn=c66de28e_5>*

During 21-24 April 2021, fewer than 100 people with disabilities in Dili received the first dose of the AstraZeneca vaccine with the assistance of two disability organizations, the Asosiasaun Defisiensia Timor-Leste (ADTL) and Raes Hadomi Timor-Oan (RHTO) (Independente, 2021). The number was reportedly low because of a lack of confidence in the vaccine; after the healthcare personnel explained the effects of the AstraZeneca vaccine to these people, they consented. After disabled persons in Dili received the AstraZeneca vaccine, RHTO staff clarified that persons with disabilities at the national and municipalities level were still afraid of receiving the vaccine, so their organization continued to advocate to other people with disabilities outside of the capital, to convince them to take the vaccine.

It should be noted that in the initial COVID-19 vaccine distribution plan, before Sinovac became available, the Government of Timor-Leste had only one option, which was to accept the AstraZeneca vaccine. In fact, the WHO recommended that the most appropriate vaccine in the Timor-Leste context was the AstraZeneca vaccine because of its safety and effectiveness, and because Timor-Leste was equipped with

the appropriate storage and cooling facilities (Government of Timor-Leste, 2021). The WHO played a vital technical support role in Timor-Leste; because of a lack of knowledge and experience in managing a pandemic and administering a large-scale inoculation program, Timor-Leste needed the WHO to help with preparation and supply technical skills to the health team to conduct COVID-19 vaccine awareness (Interviewee 4, personal communication, 2 December 2022). However, while the WHO's recommendation ensured Timor-Leste received vaccines, it was not perfect: although 149 countries approved the AstraZeneca vaccine, it was not approved in the US. A similar issue also applied to the Sinovac vaccine, which was approved in 56 counties but not in the US, Japan, Australia, and elsewhere (Track Vaccines, 2022).

The technical and health protocol and guidance from the WHO also created dependency and did not allow for the Timor-Leste government to make independent decisions about the COVID-19 vaccine. Regarding WHO dependence, two local NGOs stressed that there was a "significant intervention from WHO" which did not give adequate opportunity to Timorese to make their own plans and decisions, especially how to choose the vaccine according to the people's will (Interviewee 8, personal communication, 3 March 2023; Interviewee 10, personal communication, 4 March 2023).

The other vaccine recommended by the WHO was Pfizer. In October 2021, the Timor-Leste government received around 100,620 doses of the vaccine through the COVAX facility, supported by the US. As announced on the website of the US Embassy in Timor Leste, "It was the first time the Pfizer vaccine used in Timor-Leste and provided by the USA was provided at no cost". This vaccine was only given to Timorese children 12-18 years old or used as boosters for adults (UNICEF, 2021).

The Chinese government distributed the Sinovac vaccine as a part of China's foreign aid commitment. The Chinese government has supported Timor-Leste with external assistance for over ten years (Timor-Leste Government, 2010).. The Timor-Leste government formally asked the Chinese government to increase the supply of vaccines to support existing vaccine stocks (Government of Timor-Leste, 2021). The Chinese Ambassador to Timor-Leste, Mr. Xiao Jianguo, declared that the Chinese government was pleased to comply with the Sinovac support requested by the Timor-Leste government. He also stressed that Timor-Leste was one of the first countries to which the Chinese government had provided COVID-19 aid, and prepared the vaccine transportation by chartering planes directly to Timor-Leste (Government of Timor-Leste, 2021).

This diplomatic statement showed that Chinese presence in Timor-Leste is vital, and that China will continue to build its soft power in Timorese society, particularly to preserve a long-term friendship in the future. Of course, as China is a big country that is a key player in the Pacific region, Timor-Leste's geopolitical position makes it one of the targets for China's Belt and Road Initiative, both in terms of economic and security interests.

Another concern regards the measure which restricted access to travel between municipalities and public and banking services in Timor-Leste to citizens without proof



of vaccination. This policy came into effect in accordance with presidential decree no. 35/2021 and was heavily enforced by the police. As such, people may have received the vaccine not for COVID-19 infection prevention reasons but to secure their right to freedom of movement within the territory of Timor-Leste. Students needed a "proof of vaccination card" to access university education (Interviewee, 3, personal communication, 23 December 2022; TVTL, 2021). The Prime Minister of Timor-Leste publicly announced that all public servants who were not vaccinated were prohibited from going to work and that they were to "stay home and later [...] lose their jobs" (Tatoli, 2021; TVTL, 2021).

It is also important to note that the government abided by one of its core vaccination campaign principles, which was a policy of non-discrimination for non-citizens like non-residents, migrants, migrant workers, refugees, and stateless people. Everyone in the territory of Timor-Leste had access to vaccines for free, including first, second, and booster doses. Chinese migrants who preferred Sinovac were advised to receive it at government health centers and clinics (RTTL, 2021).

On 8 June 2021, the vaccine program coordinator from the Ministry of Health clarified that the Sinovac vaccine was available to all migrants from China, everyone in Dili, and everyone who could access Dili (RTTL Online Live Streaming, 2021). The Government of Timor-Leste started to roll out the Sinovac vaccine, prioritizing young people aged 18 and above, teachers, and the Chinese community (Government of Timor-Leste, 2021). On 14 June 2021, the vaccine was distributed to various universities in the capital city.

FONGTIL (2021), in its monitoring report, recommended to the MoH to also distribute Sinovac to municipal areas because some Timorese people there wanted to receive it. Indeed, Sinovac is only available in Dili, though people outside Dili also asked the government to allocate it to remote areas. This proves that the distribution of vaccines to rural areas is unequal. The government has failed to explain this, other than saying that the vaccine is available with "around 200,000 doses administered" by the Chinese government (Government of Timor-Leste, 2022).

# PART IV: LIMITATIONS TO SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY IN TIMOR-LESTE

## 4.1. Limitations to self-reliance

The Timor-Leste government made efforts to ensure the availability of vaccines and equipment for COVID-19. The issue of health capacity was a public concern for a young and fragile country like Timor-Leste. Thus, it was impossible to produce any kind of vaccine locally. The government knew that dependence on large countries and international organizations would be high and that seeking special assistance from donor countries was crucial. There was deep concern about Timor-Leste's ability to procure vaccines and secure foreign assistance. In terms of resiliency, there was a national budget available to allocate to COVID-19 prevention and mitigation; however, for vaccine supply, Timor-Leste still relied on external assistance from multilateral funding. A key government member acknowledged in an interview with the author that Timor-Leste "did not have sufficient capacity to access COVID-19 vaccines without external assistance" (Interviewee 4, personal communication, 12 December 2022).

In terms of financial support, COVID-19 vaccines, and medical equipment, the Government of Timor-Leste received foreign assistance from various donor countries as soon as the COVID-19 outbreak started in 2020. As can be seen in Table 3 below, there was international equity insofar as Timor-Leste received vaccines from various donor countries through bilateral and multilateral approaches. These donors showed their willingness and commitment to support Timor-Leste. Leading donors included countries from the Pacific region like Australia, Japan, South Korea, and China, as well as European Union member states.

**Table 3: COVID-19 vaccine donors**

| Types of vaccine | Doses | Donor |
|---|---|---|
| AstraZeneca | 500,000 | Covax facility[10] |
| AstraZeneca | 777,850 | Australia |
| AstraZeneca | 142,000 | Portugal[11] |
| AstraZeneca | 168,000 | Japan |
| Pfizer | 201,240 | US |
| Pfizer | 259,740 | Australia |
| Sinovac | 200,000 | China[12] |

*Source: UNICEF*

For transparency and accountability, donor countries and international organizations, such as the UN agencies (UNICEF, the WHO, and UNDP) in Timor-Leste, have provided all relevant information through their official websites. Similarly, the Timor-Leste government has an Aid Transparency Portal[13] that provides data and information on all types of external assistance received, including the total budget provided by the donors; however, it is quite challenging to find the exact data on vaccine procurement.

There were also additional vaccine donations directly provided by the donor countries, which are noted on the government's official webpage but are not recorded in the Aid Transparency Portal. For example, in July 2021, Portugal donated 12,000 doses of the AstraZeneca vaccine to the Timor-Leste government (Government of Timor-Leste, 2021). Similarly, there were also donations by non-state actors, such as the Jack Ma Foundation and the Alibaba Foundation, which provided medical supplies to Timor-Leste (Embassy of the People's Republic of China in the Democratic Republic of Timor-Leste, 2020).

As a small country, Timor-Leste is concerned that its position should be reflected in its foreign policy vision in a way that upholds friendship with all countries. In this regard, Timor-Leste must also prudently assert itself, be able to calculate the magnitude of its cooperation with China, and ensure it is always in the corridor of "mutual interest" in this region.

As reported by the General Director of the Secretary of State of Employment and Training (SEFOPE), the Australian Government prohibited entry of Timorese seasonal workers who had been vaccinated with the Sinovac vaccine (Social Media GMNTV, 2021). This created an issue for Timor-Leste: this entry restriction clearly showed Timor's dependency on Australian AstraZeneca products, but many Timorese people had no choice but to accept the Sinovac vaccine; in fact, many high-profile public figures and politicians had been openly given Sinovac. The issue led some members of Timorese society to question whether those high-profile people would also be refused entry to Australia in the same way.

[10] This was a part of 20% from COVAX Facilities supported by several countries like (Catalent - Italy, SII-AZ – India, SKBio-AZ - Korea). India (SII-AZ) also supported Timor-Leste with 1,000 doses through a UN bilateral agreement.

[11] Portugal supported AstraZeneca two times in 2021: the first batch of 12,000 doses in July, and second of 130,000 in September.

[12] China provided two tranches of Sinovac: 100,000 in June 2021 and 100,000 in March 2022.

[13] The Aid Transparency Portal (ATP) is the central repository for all aid information in Timor-Leste, and aims to improve aid transparency, accuracy and predictability and to ensure assistance provided is efficient and effective. The Ministry of Finance Development Partnership Management Unit oversees the ATP. https://aidtransparency.gov.tl/portal/

## 4.2. Transparency and accountability

In 2020, FONGTIL and its members established the COVID-19 Information Center, which provided communities with information related to COVID-19 protocols and prevention measures, and supported the government in its efforts, especially outside of Dili. FONGTIL also established a consultative discussion program called the Forum of Dialogue. Through this forum, civil society representatives often organized meetings and dialogues with state officials like Members of Parliament and the President of Timor-Leste (BELUN, 2021). It allowed civil society representatives to provide information and recommendations on a range of issues, including vaccine inoculation progress in the community, related challenges, and best practices. It also allowed transparency regarding the vaccine procurement process — especially how vaccines were received from donor countries and how much money the Government of Timor-Leste provided for shipping costs.

One of the key informants acknowledged that vaccine procurement is a sensitive issue, and that the government cannot provide further information on this matter (Interviewee 6, personal communication, 12 December 2022). However, an NGO member highlighted that the Government of Timor-Leste "was in panic and fears" from criticism from the community and political opposition. Therefore, the government often refuses to disseminate information transparently (Interviewee 7, personal communication, 3 March 2023).

For example, as stated by a local NGO staff member, the government did not even provide proper information about its COVID-19 budget allocation report (Interviewee 8, personal communication, 3 March 2023). There might have been some budget allocation to procure vaccines, but the government is not willing to openly share this information. One example that is openly available is how the government allocated money for the logistics preparation for vaccine storage. According to data revealed by the TATOLI news agency (2021), the Government of Timor-Leste allocated USD35,000 to purchase freezers for vaccine storage and an undisclosed amount of money was also allocated for training healthcare workers about the COVID-19 vaccine. Indeed, there might have been more budget allocation from the government for logistics and training; however, when this research was conducted there was no further data available.

Furthermore, before the COVID-19 fund was established in 2020,[14] there was a Contingency Reserve Fund used by the government with a total amount of USD6,403,800 which was allocated to student displacement from Wuhan, COVID-19 prevention, medical support, and operational costs for the CIGC.[15] Later on, in 2021, the government approved a COVID-19 fund with a total amount of USD150 million allocated to the Parliament to use for monitoring the implementation of the program for mitigating COVID-19 (Lao Hamutuk, 2020).

The Timor-Leste state budget report (2021) shows that the government had the funds. For example, at the end of 2021, the government accessed the COVID-19 fund and spent the money to manage the COVID-19 pandemic. However, the data has yet to be compiled in a central location to ensure that everyone can easily access the funding breakdown, including budget allocation, to ensure transparency on the government's expenditures. Indeed, regarding the money the government has already spent, it does not provide details of the budget allocated by the government for activities relevant to the program objectives.

Regarding transparency and accountability, information about the amount of money allocated to buying vaccines, and other operational costs such as logistics costs, import duties from other countries, shipping costs, vaccine storage, and freezers is not available openly on the government's official website. For this issue, Lao Hamutuk stressed that the national budget for public funding should be transparent in implementing its execution and reporting, because it is the right of the public to know how much money has been allocated by the government for COVID-19 mitigation. Lack of transparency in financial reports also "undermine civil societies to access all the relevant information to monitor government COVID-19's funding activities" (Interviewee 8, personal communication, 3 March 2023).

Other crucial issues have become lessons learned about transparency and accountability, for example discrimination against Timorese people who were vaccinated with Sinovac. The lack of approval of Sinovac by some countries in fact only gave those wanting to travel the option of choosing AstraZeneca. The Timor-Leste government failed to explain the travel situation clearly and did not disseminate the relevant information in a transparent and accountable manner.

[14] The COVID-19 Fund is a special budget approved by members of parliament in 2021 to conduct programs and activities related to mitigating the harms of the COVID-19 virus.

[15] Ministerial Diploma No. 14/2020, of 31 March, under article 29 of Law no. 2/2020, of 21 April, National Security Law, created the Integrated Crisis Management Centre (CIGC) as a specialized body for advising and consulting in the technical coordination of operations for the activities that make up the integrated system of National Security, namely, to develop strategies for conflict prevention, under the auspices of the Prime Minister's Office.

# PART V: CONCLUSION

When the COVID-19 pandemic emerged, a significant challenge for Timor-Leste was the need for sufficient expertise to combat this health crisis. There was a lack of experience in the country and its health facilities, and support to manage COVID-19 was limited. This certainly put this young democratic nation at risk of a catastrophic response to the COVID-19 pandemic.

Nevertheless, despite the challenges, by 13 February 2023 around 60.53% of the population had been vaccinated with two doses. There were three major countries — Australia, China, and the US — that had provided substantial humanitarian assistance to Timor-Leste, largely in the form of their country's vaccine products. A number of other countries and some UN agencies also provided their support in terms of both financial and technical expertise to ensure Timor-Leste could overcome this pandemic threat.

Although Timorese society witnessed moments of hardship during the COVID-19 pandemic, there was much clarity in the government protocols, rules, and restrictions. In this regard, vaccine distribution by the government must be recognized as a success as the vaccine was given to almost the entire population, including those from marginalized groups, persons with disabilities, and people over 60 with comorbidities.

Turning back to the government's lack of transparency and accountability over the COVID-19 outbreak, it is clear why this issue remains a public concern. Information on government policy and programs should be available from various sources. Up to when this report was written, in February 2023, there was no detailed information available from the government about the number of COVID-19 patients in intensive care, including mortality rates and vaccine information, or the number of people who had received two doses and the booster.

To address these gaps, this study asserts some recommendations:

1. The government must continue to disseminate information regularly to the public.

2. The government should fulfill the right to information on COVID-19 vaccines. All the relevant data must be compiled and made available in a format which is easily accessible to everyone, including marginalized groups. The government must ensure public access to financial reports on COVID-19 vaccine procurement on different media channels and in different formats.

3. Good practice is required for the current multi-stakeholder approach. This is to guarantee that people in rural areas can access official government information on COVID-19 vaccines, especially focused on Pfizer, which is yet to be distributed.



4. Even though vaccine assistance is a form of humanitarian assistance, the government must ensure public access to financial reports, lists of the donors, and the total number of vaccine doses sent, including the whole procurement process.

5. Cooperation with international organizations and donor countries is essential to ensure the state's resilience; however, the government must start to allocate a portion of its national budget to the next potential pandemic, not entirely reliant on foreign aid and expertise. Local experts, civil society groups, and the community should be involved in any political decisions related to a vaccine during a potential future health crisis.

6. One key lesson to learn and develop is independent or collaborative decision-making. Dependency on donors remains a public concern. The government should allow Timor-Leste medical experts to make their own decisions about vaccines not based solely on intervention, advice, or influence from international experts.

7. The government should ensure that the distribution of vaccines is based on willingness and choice. The policy of making it mandatory for people to get vaccines as a precondition to access work (for public servants) and subsidies, without giving the proper information about the benefits of the vaccine, is against the principle of informed consent.

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VACCINE TRANSPARENCY AND ACCOUNTABILITY

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# THE CRISIS WITHIN CRISES IN AFGHANISTAN:

## When a Political Crisis Causes COVID-19 Vaccination Efforts to Wane

ABDUL WALI RASTA

# PART I: INTRODUCTION

## 1.1. State and trends of COVID-19 and vaccination in Afghanistan

In late 2019 and early 2020, Afghanistan found itself in the middle of a triple crisis. First, the security situation deteriorated as the Taliban gained more control on the ground (Smith, 2020), and the country was hanging between the Taliban and the Afghan National Security Forces. Second, the disputed 2019 presidential election between two rivals, Dr. Abdullah and Ashraf Ghani, led to a political stalemate (Belquis Ahmadi & Palwasha L. Kakar, 2020)[1]. Third was the COVID-19 outbreak in Afghanistan, which has a fragile healthcare system (Khudadad et al., 2021), and which continues to rank among the countries with the worst access to health globally (WHO, 2020). The country confronted COVID-19 amidst a slew of crises. These crises — political unrest, intensified violence by the Taliban, and the emergence of COVID-19 — exposed new vulnerabilities and further crippled a state that was already partially paralyzed.

On 24 February 2020, the Ministry of Public Health (MoPH) announced the first positive case of COVID-19 (MoPH, 2020), a 35-year-old man who had returned to Afghanistan's Herat province from neighboring Iran. Herat became the epicenter of the virus, which then quickly spread to the neighboring provinces in March. On 22 March 2020, the MoPH confirmed the first fatality related to the novel coronavirus, a 40-year-old man from northern Balkh province (Saif, 2020). The number of cases and deaths then escalated in all 34 provinces. According to the MoPH's DHIS2 data portal (see Table 1)[2], from the first case in February 2020 until November 2022, 206,158 people were infected with COVID-19, there were 7,834 registered deaths from the disease, and 183,873 people recovered, based on 116,0017 samples taken in 34 provinces.

[1] On 28 September 2019, Afghanistan held its fourth nationwide presidential election since the overthrow of the Taliban in 2001. The preliminary results were announced in December 2019 and declared Ashraf Ghani as the winner. Ghani's main rival, Abdullah, rejected the election results and stated that the results had been engineered, and said he would form his own government. Afghanistan's Independent Election Commission (IEC) announced the final certified results on 18 February 2020, with Ashraf Ghani as the winner. Abdullah again rejected the results and claimed that he was the rightful winner of the election. On 9 March 2020, both Ghani and Abdullah declared themselves president and were sworn in, and both pledged to form an 'inclusive government'. The inauguration of two rival presidents paralyzed post-election Afghanistan at a critical juncture — a time when the US had signed a peace agreement with the Taliban with an assurance that negotiations between the Taliban and the Afghan government would start by 10 March 2020. The dispute set Afghanistan up for a difficult political showdown at a critical time. Shortly thereafter, US Secretary of State Mike Pompeo travelled to Kabul to mediate between Ghani and Abdullah, but he was unable to convince them to put their differences aside. Eventually, after much domestic and international pressure, Ghani and Abdullah signed another power-sharing agreement that would accommodate the interests of both presidential teams.

[2] DHIS2 is an open source, web-based platform most commonly used as a health management information system (HMIS). Today, DHIS2 is the world's largest HMIS platform, in use by 73 low and middle-income countries. Approximately 2.4 billion people live in countries where DHIS2 is used. Including NGO-based programs, DHIS2 is in use in more than 100 countries. https://dhis2.org/.



**Table 1: Reported number of tests, cases, deaths, and recovered in Afghanistan, by province (February 2020 - November 2022)**

| SN | Province | Samples tested | Confirmed cases | Deaths | Recovered Cases |
|---|---|---|---|---|---|
| 1 | Kabul | 477,801 | 40,957 | 2,485 | 38,266 |
| 2 | Nangarhar | 71,300 | 17,056 | 538 | 13,907 |
| 3 | Herat | 67,483 | 20,224 | 767 | 18,823 |
| 4 | Kandahar | 65,007 | 11,756 | 257 | 11,045 |
| 5 | Balkh | 59,883 | 9,091 | 583 | 8,275 |
| 6 | Kunduz | 27,495 | 6,028 | 226 | 5,644 |
| 7 | Takhar | 23,752 | 6,690 | 233 | 6,201 |
| 8 | Baghlan | 23,313 | 4,978 | 99 | 4,802 |
| 9 | Parwan | 21,974 | 5,531 | 51 | 4,798 |
| 10 | Wardak | 21,605 | 6,527 | 217 | 6,192 |
| 11 | Nimroz | 19,849 | 3,498 | 108 | 3,282 |
| 12 | Badakhshan | 19,521 | 4,888 | 88 | 4,671 |
| 13 | Ghazni | 18,313 | 5,691 | 163 | 4,622 |
| 14 | Helmand | 18,069 | 4,333 | 166 | 3,713 |
| 15 | Kunar | 15,769 | 3,548 | 108 | 3,084 |
| 16 | Bamyan | 15,682 | 4,319 | 52 | 4,222 |
| 17 | Kapisa | 15,525 | 4,897 | 89 | 4,202 |
| 18 | Logar | 14,646 | 3,795 | 96 | 3,238 |
| 19 | Laghman | 14,400 | 4,140 | 190 | 3,948 |
| 20 | Panjsher | 14,187 | 3,920 | 49 | 3,478 |
| 21 | Paktya | 14,088 | 3,924 | 209 | 3,650 |
| 22 | Faryab | 13,895 | 2,301 | 145 | 1,802 |
| 23 | Dykundi | 13,558 | 3,691 | 68 | 2,910 |
| 24 | Zabul | 12,221 | 3,330 | 80 | 2,313 |
| 25 | Ghor | 10,768 | 3,994 | 60 | 3,473 |
| 26 | Urozgan | 10,595 | 1,281 | 20 | 776 |
| 27 | Badghis | 10,464 | 2,497 | 32 | 1,870 |
| 28 | Farah | 9,759 | 3,049 | 169 | 1,712 |
| 29 | Jawzjan | 8,432 | 1,952 | 51 | 2,018 |

| | | | | | |
|---|---|---|---|---|---|
| 30 | Samangan | 7,164 | 1,835 | 73 | 1,726 |
| 31 | Sar-e-Pul | 6,560 | 1,415 | 34 | 1,206 |
| 32 | Paktika | 6,107 | 1,996 | 54 | 1,631 |
| 33 | Khost | 5,992 | 2,230 | 266 | 1,623 |
| 34 | Nooristan | 4,840 | 796 | 8 | 750 |
| | Total | 1,160,017 | 206,158 | 7,834 | 183,873 |

*Source: MoPH, DHIS2 data portal*

While the number of cases varied by province, Kabul, with more than four million people (Worlddata, n.d.), remains the most affected, with 40,957 confirmed cases as of November 2022, followed by 20,224 in Herat, 17,056 in Nangarhar, and 11,752 in Kandahar. Provinces such as Kunduz, Takhar, Baghlan, Parwan, and Wardak had 6,000-9,000 confirmed positive cases, while other provinces had fewer than 2,000 confirmed cases.

According to UN and World Bank data, Afghanistan's total population was approximately 40 million in 2021, with 47% below 15 years of age (MoPH, 2021). The highest proportion of recorded COVID-related deaths were in the 60-69 age group (30%), 70-79 age group (21%), and 50-59 age group (20%). Of the total recorded COVID-19 deaths, 65% were male, and 35% female. However, according to the UN Office for the Coordination of Humanitarian Affairs (OCHA) and WHO, confirmed COVID-19 cases and deaths are likely to have been under-reported, due to limited public health resources and testing capacity, as well as the absence of a national death register (OCHA, WHO, 2021).

Despite the political and security crises, the previous government of Afghanistan[3] made valiant efforts to contain the spread of COVID-19. It imposed cross-border screenings and testing as the first intervention to identify and quarantine Afghan returnees from Iran, which hosted more than two million Afghan refugees and migrant workers (Salmani et al., 2020). During the COVID-19 outbreak, tens of thousands of migrant workers crossed the border from Iran to Afghanistan, with Herat along their transit route to their provinces. However, the measures imposed were ineffective in controlling the transmission and spread of the virus in the country due to low testing capacity as compared to the number of returnees. Furthermore, in March 2020, the Afghan government developed and introduced the National Emergency Response Plan for COVID-19[4], in collaboration with the WHO, which aimed to tackle the pandemic; it also called for all educational institutions to be shut down, and restricted public gatherings and movements in major cities. Unfortunately, many Afghan citizens

[3] The Islamic Republic of Afghanistan (former government of Afghanistan) was established following the US-led invasion of Afghanistan in 2001 which toppled the Taliban regime. On 15 August 2021, after US troops withdrew, The Taliban swept back into power and the Islamic Republic of Afghanistan ended on the same day.



simply did not take the threat of the virus seriously; they frequented packed markets, ate in crowded restaurants, and ignored restrictions and guidance (Basij Rasikh et al., 2020).

In an attempt to further confront and stop the spread of COVID-19, the government advised case detection and isolation as critical interventions. As part of its COVID-19 early response, the MoPH dedicated one hospital in Kabul, with around 1,541 beds, for the treatment of COVID-19 patients (Basij Rasikh et al., 2020). By March 2020, there were 300 ICU beds available nationwide for severe cases to be quarantined under the isolation ward protocol; mild and moderate cases were to be quarantined at home. Despite the increasing cases, Afghanistan had one of the lowest national testing capacities in the region for COVID-19 (Basij Rasikh et al., 2020).

As a low-income country, Afghanistan has struggled to acquire enough vaccines to fully vaccinate its population. It has thus largely relied humanitarian aid and on the COVAX facility[5], which aimed to provide low- and middle-income countries with vaccines to vaccinate 20% of their populations (Tagoe et al., 2021).

Afghanistan received its first shipment of 500,000 doses of the AstraZeneca COVID-19 vaccine from India on 7 February 2021, as part of the Indian government's assistance (Al Jazeera, 2021), and began to administer the vaccines on 23 February 2021. The 500,000 doses donated from India were initially administered to security force members, health workers, and journalists (Staff, 2021).

On 8 March 2021, Afghanistan received 468,000 doses of the Covishield vaccine from the Serum Institute of India, under the COVAX program, making it the first country in Central Asia to receive a vaccine via COVAX (UNICEF, 2021a). On 9 July 2021, more than 1.4 million doses of the Johnson & Johnson vaccine arrived in Afghanistan, donated by the US through the COVAX facility's dose-sharing scheme (UNICEF, 2021). On 30 July 2021, the Swedish government donated 124,800 doses of AstraZeneca vaccines (GAVI, 2021), the first shipment of three million doses it pledged. On 1 January 2022, India supplied a batch of humanitarian assistance consisting of 500,000 doses of the Covaxin vaccine to Afghanistan (Laskar, 2022). On 8 August 2021, France delivered around 144,000 doses of AstraZeneca to the MoPH in Kabul (SubheKabul, 2021).

In addition to the vaccines supplied by COVAX, India, Sweden, France, and the US, the government of Afghanistan acquired COVID-19 vaccines from China. The Chinese-

[4] To tackle the pandemic, the Government of Afghanistan developed the National Emergency Response Plan for COVID-19 (NERPC) in March 2020, to follow eight COVID-19 related pillars in coordination with relevant ministries and other agencies. The NERPC incorporated the UNICEF and WHO preparedness and response plan to COVID-19 with the aim to address the developing demands of COVID-19.

[5] COVAX is the vaccines pillar of the Access to COVID-19 Tools (ACT) Accelerator. The ACT Accelerator is a ground-breaking global collaboration to accelerate the development, production, and equitable access to COVID-19 tests, treatments, and vaccines. COVAX is co-led by the Coalition for Epidemic Preparedness Innovations (CEPI), Gavi, and the World Health Organization (WHO), alongside key delivery partner UNICEF.

made vaccine (Sinopharm) was critical in resolving Afghanistan's scarcity of vaccines, coming at a time when the country had paused its vaccination program due to a lack of vaccines. China's timely contribution of Sinopharm vaccines resumed the vaccination program in June 2021. In June 2021, China delivered the first batch of the vaccines to Afghanistan, which contained around 700,000 doses (CTGN, 2021). The second shipment, containing 800,000 doses of the vaccine, arrived in Kabul on 8 December 2021 (Asifzada, 2021), where the Chinese ambassador handed them over to the Taliban deputy health minister. A day later, around 200,000 more vaccines were delivered to Kabul as part of China's pledged humanitarian support for Afghanistan (The Killid Group, 2021). Since the 15 August 2021 political change in Afghanistan, China has announced that it would donate three million doses of vaccines, and other medical supplies, to Afghanistan (Sheng, 2021).

After the US and NATO forces withdrew from Afghanistan in August 2021, which led to the return of the Taliban, China filled the vacuum to exploit the country's natural resources and to maintain its security interests. On 9 September 2021, a month after the Taliban takeover of Kabul, Chinese Foreign Minister Wang Yi announced that his country was offering at least USD31 million worth of emergency aid, including COVID-19 vaccines, to Afghanistan (Al Jazeera, 2021). According to Xinhua state news agency, China's foreign minister said that Afghanistan was "standing at the crossroads" as it faced humanitarian crises including the COVID-19 pandemic (Xinhua, 2021). Meanwhile, the Taliban declared that China will be its "main partner" in rebuilding the war-torn country.

Afghanistan has mainly administered  three vaccines: Covishield, Sinopharm, and Johnson & Johnson. According to WHO data, as of February 2023, 15 million vaccine doses had been administered in Afghanistan, with 13.4 million people having received at least one dose (34.5%) and 12.7 million considered fully vaccinated (32.6%) (WHO, 2023). Afghanistan's vaccination rate has remained low compared to other Asian countries, despite having additional doses available. Based on the DHIS2 data portal, as of November 2022 the country had 4,619,352 doses of vaccines available, including 991,797 doses of Covishield, 2,803,686 doses of Johnson & Johnson, and 823,869 doses of Sinopharm.

## 1.2. Research methodology

This report is the result of research examining the government of Afghanistan's response to the COVID-19 pandemic. The study focuses on Afghanistan's COVID-19 vaccination plan, especially on vaccine allocation, access to information on vaccines, and vaccine equity in the national vaccination plan, as well as transparency in the implementation of the national plan. In order to better understand the COVID-19 vaccination program, it is also important to look into the distribution and procurement of COVID-19 vaccines in Afghanistan.

In this study, primary data were collected through key informant interviews with different groups of stakeholders inside and outside the government. Secondary data were collected through a desk review of the available plan, policies, strategies, and documents on COVID-19, as well as media sources.

To collect the primary data, a list of potential key informants was identified, and semi-structured interviews were conducted with 16 key informants in November 2022, using either in person or hybrid format.

**Table 2: List of interviewees for this study**

| No. | Sector | Organization/ department | Interview modality | Interview date |
|---|---|---|---|---|
| 1 | Ministry of Public Health (MoPH) | National EPI (expanded program of immunization) | In person | 13 Nov 2022 |
| 2 | | Department of Provincial Health Coordination | In person | 8 Nov 2022 |
| 3 | | Department Procurement | In person | 16 Nov 2022 |
| 4 | | COVID-19 Department Policy and Planning | In person | 12 Nov 2022 |
| 5 | Hospitals/ vaccination centers | City Hospital | In person | 7 Nov 2022 |
| 6 | | Afghan Japan Hospital | In person | 5 Nov 2022 |
| 7 | | Jamhuriat Hospital | In person | 5 Nov 2022 |
| 8 | Non-governmental organizations (NGOs) | Bu Ali Rehabilitation & Aid Network (BARAN) | In person | 14 Nov 2022 |
| 9 | | Management Science for Health (MSH) Afghanistan | In person | 17 Nov 2022 |
| 10 | | Aga Khan Health Services (AKHS-A) | In person | 9 Nov 2022 |
| 11 | | BRAC-Afghanistan | In person | 23 Nov 2022 |
| 12 | | Integrity Watch Afghanistan | Hybrid | 21 Nov 2022 |
| 13 | | Bakhter Development Network (BDN) | In person | 10 Nov 2022 |
| 14 | Media | Radio Talwezon Afghanistan (RTA) | In person | 5 Nov 2022 |
| 15 | | Ariana TV | In person | 17 Nov 2022 |
| 16 | | Tolo TV | In person | 15 Nov 2022 |

A set of questionnaires was originally developed in English, but due to local language barriers, the questionnaire was translated into Dari/Farsi. The key themes included in this study were identified in cooperation with Innovation for Change – East Asia. The author translated the data into English from Dari/Farsi, and then analyzed the data using thematic analysis, coded in qualitative analysis software Nvivo. The coded and analyzed data were manually reviewed for better results.

The main limitation of this research was the lack of knowledge of the key informants, due to administrative changes after the Taliban takeover and inadequate access to information. In cases where data sources were successfully accessed, with some exceptions, there was widespread unwillingness by the interviewees to engage or answer the researcher's questions. The main reason for this lack of willingness was due, in part, to the interviewees' lack of knowledge about the existence of available information and their fear of the Taliban punishing them for revealing the truth. In addition, some interviewees refused to allow the interview to be recorded.



# PART II: ON INFORMATION ACCESSIBILITY

Information accessibility is of huge importance in mitigating COVID-19. Timely communication and publicly sharing of accurate information build citizens' trust in public institutions and allow the government to effectively respond to the deadly virus. Access to information also prevents corruption and allows the public to hold government agencies accountable.

During the COVID-19 vaccination rollout in Afghanistan, and into the Taliban administration, the WHO was a primary source of information. In the previous administration in Afghanistan, the MoPH was the primary source other than the WHO, providing regularly updated information on its webpage.[6] This information was accessible in various forms, such as pre-published reports, press conferences, updated information about COVID-19 vaccination through media and social media releases, and radio broadcasting. However, after the taking over on 15 August 2021, the Taliban rarely shared any information on vaccination, either with the media or publicly.

The MoPH under the Taliban administration has been reluctant to share information with the media and public about the pandemic, and when it does, there is generally a significant discrepancy between its reports and data from other sources (Sorush and Ruttig, 2022). According to an April 2022 report by Afghanistan Analyst Network (AAN), "when it comes to informing the public via the media, the Taliban now only share data via voice messages or video clips to a WhatsApp group for journalists once a week, if that". The last time the MoPH under the Taliban updated the media on COVID-19 status and vaccination in any way was on 1 April 2022, when MoPH spokesman Javed Hazhir sent a video clip to journalists and posted it on his Facebook.

Informants for this study from within the media and NGOs stated that they do not have access to COVID-19 information. On the contrary, only designated members of the MoPH's DHIS2 staff and the WHO have access to the COVID-19 database in the DHIS2 data portal (BRAC, personal communication, 2022). A private hospital in Kabul consulted for this research stated that the MoPH under the Taliban administration does not disseminate or share any information related to COVID-19 vaccination (City Hospital-Kabul, personal communication, 23 November 2022). Public hospitals in Kabul stated, "We had access to COVID-19 and vaccination-related information in the previous administration, but since the August 2021 regime change, access to information on vaccines has been limited", even to MoPH partner NGOs.

The Afghanistan COVID-19 Emergency Response and Health Systems Preparedness Project was prepared under the World Bank's Environment and Social Framework

(ESF).[7] As per World Bank Environmental and Social Standard 10 (Stakeholder Engagement and Information Disclosure), implementing agencies should "provide stakeholders with timely, relevant, understandable, and accessible information, and consult with them in a culturally appropriate manner, which is free of manipulation, interference, coercion, discrimination, and intimidation". The case of information accessibility and sharing is different under the Taliban administration, which does not follow the previously developed policies; this can be connected to the new appointments and replacement of the previous administration's staff.

The previous Afghan government claimed that the MoPH and the Ministry of Communication and Technology Affairs jointly developed a mobile application providing updates on COVID-19, saying, "This application was created in collaboration with the Ministry of Telecommunications and Information Technology" (TOLOnews, 2020). However, as of November 2022, the web address (www.corona.asan.gov.af) was not accessible.

The MoPH ran public awareness through health centers and mobile healthcare staff, but it also raised awareness through mosques and religious leaders in cooperation with the Ministry of Haj and Religious Affairs. Additionally, civil society, including the media, used to play a significant role in awareness-raising and COVID-19 information dissemination, but since the political change the enabling environment for CSOs has shrunk. That leaves the media no longer a reliable source of information on COVID-19.

On the other hand, information on Chinese-donated vaccines to Afghanistan gained media attention. A survey by Hart (2022) published in China Power summarized that, "In 84 countries, government officials of varying seniority participated in handover ceremonies to show gratitude for deliveries of Chinese vaccines". In Afghanistan, three shipments of Chinese-made vaccines were received by Afghan ministers for public health. According to the survey in China Power, 0.9% of Afghanistan's population was covered by the Chinese vaccine based on finalized agreements as of 7 September 2021. After September 2021, China donated around one million doses of Sinopharm vaccines to Afghanistan.

China and Afghanistan have maintained good bilateral relations since 1955 (Reuters, 2011), and the Chinese government announced its support for Afghanistan at the time of the COVID-19 outbreak. On 16 July 2021, in a telephone call between president Xi Jinping and former Afghan president Ashraf Ghani, Xi stated that China was ready to continue providing support and assistance for Afghanistan's fight against the pandemic (au.china-embassy, 2021). At the early stage of vaccine production, China promised that it would deliver its COVID-19 vaccines to low- and middle-income countries in Asia and Africa, including Afghanistan. Chinese vaccine donations to Afghanistan coincided with US troops' withdrawal in 2021. Following the US withdrawal from Afghanistan and its suspension of foreign aid to the country, China was the first country to pledge emergency humanitarian aid, worth USD31 million, to Afghanistan (Y. Sheng, 2021). In addition, on 20 August 2022, China's Xinhua state news agency reported that China was among the first countries to help Afghans after an earthquake affecting eastern provinces of Afghanistan and pledged RMB50 million (about USD7.5 million) in emergency humanitarian aid (Xinhua, 2022).

The US and its NATO allies withdrew from Afghanistan in August 2021 and left a power vacuum that was filled by China. The withdrawal provided an opportunity for China to expand its influence in Afghanistan, which was in dire need of aid, by sending medical aid and vaccines, while 75% of public spending in Afghanistan was subsidized by international aid provider IRC (2023). Recently, China opened a bilateral working group with the Taliban on humanitarian assistance and economic rebuilding in December 2021 (The Diplomat, 2022). According to an article in the Diplomat released in July 2022, Beijing has delivered a dozen batches of humanitarian aid to the Taliban, with the latest aid delivered by Chinese military jets to Afghanistan. There is no doubt that China's vaccine diplomacy is aimed to secure China's economic and security interests in Afghanistan.

# PART III: ON ENSURING EQUITY

Afghanistan developed a National Deployment and Vaccination Plan (NDVP) in 2021, referred to as the National Plan for Covid-19 Vaccination in Afghanistan (NPCV-A), in line with WHO and UNICEF guidelines and following recommendations of the WHO's Strategic Advisory Group of Experts on Immunization (SAGE). The NPCV-A is the product of a joint group led by the MoPH and members of the National Technical Committee on COVID-19 (NTC). The working group includes technical and humanitarian partners and health experts (MoPH, 2021). As mentioned in the NPCV-A, the plan comports with all SAGE guidelines in prioritizing vaccine access for all and safeguarding against the exclusion of marginalized and vulnerable groups (MoPH, 2021).

The government and policy makers were responsible for not just acquiring vaccines, but also distributing them equitably among the country's population. Fair, equitable, and inclusive distribution of vaccines required capacity and ability, but Afghanistan has been dealing with many constraints, including a fragile healthcare system, a lack of infrastructure, and a lack of human resource capacity. Apart from these, an additional challenge that may have hindered or compromised Afghanistan's COVID-19 vaccination plan is the lack of general consensus on prioritized and vulnerable groups, due to unavailability of detailed and reliable data.

According to the NPCV-A, the following target groups were ultimately identified, in order of priority, reflecting Afghanistan's context and SAGE policies and strategies for vaccine development and allocation.

**Table 3: Prioritized target groups for vaccination**

| No. | Sector |
|---|---|
| 1 | Health workers (MoPH, NGOs, and private health sector), including community health workers |
| 2 | Teachers in schools and universities (public and private) |
| 3 | Security personnel |
| 4 | Prisoners |
| 5 | People with comorbidities (e.g. heart diseases, TB, diabetes) |
| 6 | People over 50 years old |
| 7 | Nomadic population (ages 30-50) |
| 8 | People living in IDP camps (ages 30-50) |
| 9 | Returnees from neighboring countries (Iran and Pakistan) over the age of 30 |
| 10 | Government and private employees working with crowds of people aged 18 years or above (e.g. Passport department) |
| 11 | People living in urban slums of big cities; emergency use for people age 18 and over |

*Source: MoPH- Afghanistan*

As practiced in other countries, Afghanistan prioritized healthcare staff to be vaccinated first. Afghanistan's vaccination allocation plan was built on "the principle of equitable access and fair allocation of COVID-19 health products developed for the Access to COVID-19 Tools (ACT) Accelerator Covid-19 Vaccines Global Facility (COVAX)" (MoPH, 2021).

**Table 4: Prioritization of target groups for 20% of the population**

| Vaccine shipment | Target population | Number | % of total population | Tentative arrival of shipment | Justification for group prioritization (from SAGE recommendation) |
|---|---|---|---|---|---|
| First shipment | All health workers (MoPH, NGOs, and private sector), including community health workers | 128,000 | 0.33 | Mar 2021 | No care homes to first target very older people. Health workers are at high risk of disease. |
| | Teachers in schools and universities (public and private) | 400,000 | 1.03 | | Weak infrastructure for mobile and internet services. It is not possible to set up a virtual education system. Vaccinating the teachers leads to opening schools for children. |

| | | | | | |
|---|---|---|---|---|---|
| Second shipment | Security Personnel | 400,000 | 1.03 | May 2021 | Big number live in shared rooms (indoor) in military bases. |
| | Prisoners and residents of women's shelters | 33,000 | 0.08 | | Similar conditions to those of security personnel. |
| | People with comorbidities (e.g. heart diseases, TB, diabetes) | 130,000 | 0.33 | | Co-morbidity puts individuals at high risk. |
| | People over 50 years | 2,334,000 | 6.00 | Jul 2021 | At high risk by default. |
| Third shipment | Nomadic population (all men and women ages 30-50) | 300,000 | 0.77 | | Nomads are a population on the move increasing their risk of contracting the virus. |
| | People living in IDP camps ages 30-50 | 300,000 | 0.77 | | Living either in camps or miserable situation. |
| Fourth shipment | Returnees from neighboring countries (Iran and Pakistan) over 30 years | 400,000 | 1.03 | Sept 2021 | Risk of virus circulation and transmission of the virus to others. |
| | Government and private employees working with groups of people ages 18+ (e.g. passport department) | 100,000 | 0.26 | | Some departments or institutions handle a large number of clients on a daily basis (e.g. passport department has over 2,000 clients/ day.) |
| Fifth shipment | People 18+ living in urban slums of big cities, and emergency uses | 3,258,000 | 8.38 | Oct-Nov 2021 | Poor hygiene practices, poor living conditions, living in shared facilities, poor living situations. Emergency use means any eligible group who is not known/noticed now but will be identified during implementation |
| **TOTAL** | | **7,680,000** | **20.01** | | |

*Source: MoPH- Afghanistan*

There are some discrepancies between Afghanistan's priority groups for vaccination and the international scheme for COVID-19 vaccination. According to Afghanistan's vaccination plan, health workers and teachers are prioritized first and second, followed by security personnel, prisoners, people with comorbidities, people over the age of 50, nomadic people, and more. But the international allocation scheme for pandemic COVID-19 vaccines targets essential workers first, which extends beyond healthcare workers. The international scheme says: "Essential workers might include, but are not limited to, workers in the food industry and domestic transportation, police and military staff who maintain public safety, and workers who maintain electricity, water, fuel, information, and financial infrastructures" (Wang et al., 2020). The international scheme also targets people who might experience irreversible and devastating harm from COVID-19 (that is, admission to hospital, admission to critical care, and death).

Target populations include people older than 65 years, and those with high-risk health conditions. Finally, the international vaccine allocation scheme focuses on reducing SARS-CoV-2 transmission, meaning that high transmission groups should be targeted. Target populations include adults and children involved in economic or educational activities who experience a higher risk of economic or educational harm from not working or going to school (Wang et al., 2020). Afghanistan's vaccination plan prioritized prisoners and nomadic people, and included them in the first essential workers' group, justifying the latter group by saying "Nomads are a population on the move increasing their risk of contracting the virus".

According to the NPCV-A (Tables 3, 4), the target groups identified for the first stage (20% of the population, based on the assumption of planned COVAX provision of vaccine doses) were meant to be vaccinated by the end of 2021. The remaining population was to receive vaccines based on the availability of vaccines outside COVAX, with people with disabilities and those older than 18 but not included in the above table identified as target groups for the additional vaccination. According to Human Rights Watch report 2020, Afghanistan has one of the largest populations per capita of persons with disabilities in the world (HRW, 2020). The first-ever government survey on disability in Afghanistan concluded that a family member in approximately one in five households (or roughly 1.2 million people) has a "severe disability", and a family member in nearly two in five households (or roughly 2.4 million people) has some type of disability (Shinwari, et al., 2020). According to Shakespeare et al. (2021), people with disabilities globally have been affected by COVID-19 on multiple levels, including by facing many barriers to inclusion in the COVID-19 response. In Afghanistan, the spread of COVID-19 caused greater inequality between people with disabilities and other citizens, and it caused people with disabilities to face multiple forms of discrimination, access constraints, social barriers, and lack of access to vaccines.

The NPCV-A prioritized the target groups (Table 3) to be vaccinated in the first stage by the end of 2021. However, this study shows that the vaccination program ran according to the plan only for a short period. According to the NPCV-A, around 7,780,000 people (20% of the population) should have received vaccines by the end of 2021; however, only 4,856,713 people (12.1%) had received at least one dose by the end of 2021. Many factors caused this mismanagement, such as interference and influence of authorities, corruption, issues with vaccine delivery and transportation, vaccine hesitancy, political change, and the incompetence of the Taliban administration.

Additionally, government personnel and people with relationships within healthcare bodies received vaccinations first. According to the DHIS2 data portal, people in major cities rushed to get vaccines in July 2021, but the rate dropped after the political changes in August 2021.

Afghanistan has also faced challenges related to COVID-19 vaccine hesitancy, worsened by a low literacy rate (37.27%) and the suspicious mindset of Afghan people. Despite available information, education, and communication, materials were developed from the Islamic perspective during the prior administration (including



a fatwa regarding COVID-19 preventive measures), and measures to address vaccine hesitancy were carried out by the Ministry of Religious Affairs and the WHO. Furthermore, materials were prepared for people who are illiterate or lack access to the Internet. According to a study conducted in late 2021 (Nemat et al., 2021), less than two-thirds of the Afghan public was willing to take the COVID-19 vaccine, and a significant portion had reservations about taking it. The negative perceptions of those unwilling to take the vaccine may also have influenced others and posed a challenge to implementing the COVID-19 vaccination program targeting the eligible population. In interviews with Aga Khan Health Services in Afghanistan (AKHS), Bu Ali Rehabilitation & Aid Network (BARAN), and Bakhtar Development Network (BDN), respondents said that people in Afghanistan hesitated to take vaccines, believing that the vaccines have negative side effects and might result in disabilities (AKHS, BARAN, BDN, interview, 2022).

Vaccine hesitancy was also driven by misinformation (Nemat et al, 2012). Initially, misinformation circulated by word of mouth within the Afghan community, with people saying things like "COVID-19 vaccine causes blood clotting and will kill a human within one year", "vaccines will make men and women infertile and then kill them", and "COVID-19 is a human-made virus made to reduce the Muslim population" (RTA, interview, 2022). Low levels of confidence, illiteracy, religious beliefs, and mistrust of the government have fueled vaccine skepticism in Afghanistan. According to Nemat (2021), many Afghans still perceive COVID-19 as a hoax or as exaggerated, instead of as a serious public health threat. To counter disinformation, the Afghan government ran public awareness programs by engaging with existing public health and community-based networks, media, local NGOs, schools, local governments, and other sectors such as health service providers and business and private sector actors, while emphasizing the use of two-way channels to detect and counter misinformation.

# PART IV: ON ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

At the beginning of the COVID-19 outbreak in late 2019 and during its fast spread around the world in 2020, high-income countries rushed to manufacture vaccines for immunization against the virus. In February 2021, most high-income countries started to vaccinate their populations, but low-income countries like Afghanistan — where a protracted conflict has made the economy and healthcare system fragile — were not able to afford COVID-19 vaccines. While Afghanistan has struggled to manage vaccines through COVAX and aid from friendly countries, its health system has already suffered from conflict and political instability, and it has failed to develop a successful response.

Besides challenges in obtaining vaccines, the country's vaccination program has had shortfalls in funding the vaccination program; problems with vaccine distribution, monitoring, logistics, and delivery; and a lack of coordination and communication with the public and local civil society organizations.

Afghanistan's healthcare system heavily depends on international partners and INGOs, and the government in Afghanistan contributes only approximately 5% of the country's public health services budget (Wardak et al., 2021). According to an MoPH estimate (Ministry of Finance, 2021), USD319 million was needed to cover 60% of the population. Based on the National Statistics and Information Authority's (NSIA) estimation, around 47% of the Afghan population is under the age of 15. By vaccinating the eligible 60% of the population (with the UN total population project estimating Afghanistan's total population at 39 million as of February 2021), Afghanistan excluded from vaccination people under the age of 15, which accounts for approximately 40% of the population.

The USD319 million estimate included vaccine costs, operational costs, cold chain, training, and capacity building. According to the MoPH (Ministry of Finance, 2021), international partners provide financial support for the NPCV-A. In brief, COVAX committed to financing COVID-19 vaccine doses for 20% of the population, with an estimated cost of USD84 million. Meanwhile, the World Bank committed to supporting Afghanistan's COVID-19 vaccination program through technical assistance, vaccine delivery, equipment, and payment for vaccinators, totaling an estimated USD63 million; the Afghanistan Reconstruction Trust Fund (ARTF), a multi-donor trust fund administered by the World Bank, provides USD50 million as co-financing for the project. Additionally, Afghanistan received USD50 million from the Asian Development Bank's Asia-Pacific Vaccine Access Facility (APVAX) (Asian Development Bank, 2021), aiming to cover: (1) procuring and delivering COVID-19 vaccines to the target groups; and (2) strengthening the capacity of the MoPH to procure and deliver the vaccines. That said, Afghanistan needs USD72 million more to fully implement the vaccination program.



When it comes to data collection, surveillance, and monitoring the NPCV-A, Afghanistan has adopted the three following strategies:

- Utilization of the MoPH DHIS2 platform to collect data and disseminate the results during the COVID-19 vaccine introduction;
- A Smart Paper Technology (SPT) system, to collect real-time data from health facilities; and
- Utilization of the existing Regional/Provincial EPI Management Team (REMT/PEMT) and Partner Supervisors: while receiving health facility data through the DHIS2, the MoPH also utilizes the provincial EPI management teams (PEMTs), Basic Package of Health Services (BPHS) implementing NGOs, and partners (i.e. UNICEF, the WHO, etc.) to monitor the implementation of the COVID-19 vaccine introduction.

The above methods have been used as data monitoring infrastructure to ensure the target population is vaccinated and the vaccine implementation progresses as planned. Nevertheless, the vaccination data has never been shared publicly since the Taliban takeover.

Lastly, the NPVC-A addresses the subject of public and CSO engagement and involvement in the vaccination program as follows: "The roles of stakeholders can include (but are not limited to) planning, funding, formulating strategies, directing the policy, facilitating the implementation, providing technical and operational assistance, increasing the demand, helping the health workers during vaccination, negotiating with non-government actors for access, advocating for political commitment, protecting the health workers during conflict (if it occurs), designing the guidelines and protocols, coordinating the activities, monitoring and evaluation, capacity building, administering the vaccine to target groups, reporting, and so on". According to the NPCV-A, the role of NGOs in monitoring is highlighted as major, but only implementing NGOs. CSOs working with, or functioning as part of, NGOs are not mentioned. The public's stipulated role in initiating is minor, while its role in planning, executing, and monitoring is considered major; however, this is contradicted by the findings of this study.

# PART V: CONCLUSION

Years of protracted conflict, political instability, and the 15 August 2021 regime change in Afghanistan have further weakened its already fragile healthcare system's ability to develop COVID-19 countermeasures and implement its COVID-19 program. Despite the last two decades of international aid flow into the country, the MoPH has only had piecemeal development in health service delivery.

The scarcity of necessary tools to confront and respond to COVID-19 and deploy vaccines have been missing in Afghan healthcare institutions, such as funding, sufficiently trained medical personnel, and processes for administration and distribution of vaccines. At the same time, vaccine hesitancy, an 'infodemic', and poor access to health information are among the other factors that hurt Afghanistan's response.

Since the COVID-19 outbreak, there have been certain challenges within the healthcare system — particularly access to health information. This challenge escalated when the Taliban came into power on 15 August 2021. Under the Taliban, the MoPH has been reticent to inform the media and general public about the pandemic and vaccination efforts despite the growth in COVID-19 cases. Since early 2022, the Taliban has stopped providing information to the public on vaccination efforts. The general public's understanding of COVID-19 and readiness to take measures has been hampered by pervasive, widespread poverty and illiteracy, and many Afghans have simply been absorbed with other daily hardships.

Afghanistan's COVID-19 vaccination program has been challenging; there has been low vaccination coverage in the country. A total of 34.5% of the Afghan population has received at least a single vaccine dose — one of the lowest national vaccination rates in the world.

The Taliban administration does not seem to have a clear plan to fight the pandemic. Therefore, these are the recommendations based on the findings of this study:

- INGOs, healthcare workers, and other stakeholders should stay alert and combine their efforts to rescue an already plagued nation. Most hospitals designated for COVID-19 have stopped their operations due to insufficient funds.

- The MoPH should continue its awareness campaigns to keep the most vulnerable groups safe and protected.

- The MoPH must strengthen the level of collaboration and coordination with media and religious and community leaders to encourage people to get vaccinated.



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VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# THE REALITY OF COVID-19 VACCINATION IN BANGLADESH:

## QUESTION OF INFORMATION ACCESSIBILITY, EQUITY, ACCOUNTABILITY, AND TRANSPARENCY

REZAUR RAHMAN LENIN

VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# PART I: INTRODUCTION

## 1.1. State and trends of COVID-19 vaccination in Bangladesh

The COVID-19 pandemic in Bangladesh worsened economic, social, and political problems. With a population of 169.4 million people when vaccines were first introduced, vaccination was deemed the only long-term solution for COVID-19 prevention. When the first three confirmed COVID-19 cases were found in Bangladesh on 8 March 2020 (Arifeen, 2021), the country set strict self-isolation rules. The Institute of Epidemiology, Disease Control, and Research (IEDCR), a research institute under the Ministry of Health and Family Welfare (MoHFW), began looking into COVID-19 cases and tracking down contacts to stop the disease from spreading.

The Cabinet Secretary of the Government of Bangladesh (GoB) issued a special "general leave"[1] from 26 March to 30 May 2020 before extending it seven more times (Shammi et al., 2021). The GoB used the word "lockdown" for the first time in June 2021, indicating the strict nature of the restriction and the surging rate of COVID-19 cases. At first, the government announced that it had put the country on complete lockdown for seven days (Kashem, 2021); but every week, it extended the lockdown for seven more days. In June 2020, the GoB divided the country into three zones — "red"[2], "yellow"[3], and "green"[4] — based on the severity of the outbreak in each zone (The Daily Star, 2020). Still, more than 11 million people left Dhaka to return to their home districts, making the disease more likely to spread nationwide (Shammi et al., 2020).

Bangladesh is one of the largest refugee-hosting countries in the world; COVID-19 caused catastrophic consequences in these camps (Hopman et al., 2020). The GoB and foreign aid organisations took preventive measures to address this in Cox's Bazar refugee camps. Despite the precautions, the first two cases of COVID-19-infected refugees were identified on 20 May 2020 (Anwar et al., 2020b).

The GoB's goal, as of October 2020, was to vaccinate 14 million people, or 80% of the

[1] It was considered a public holiday; all public and private sector services were halted except for emergency services, such as hospitals, medical and diagnostic centres, fire and civil defence, and police stations. Grocery stores and bazaars remained open but maintained significantly fewer crowds during this period (Mamun 2020).

[2] The most infected areas were flagged as red zones: "Outside the capital, areas with ten confirmed cases per 100,000 people were categorised as Red Zone" (Hoque, 2020).

[3] Areas with 3-19 cases per 100,000 people were categorised as yellow zones.

[4] Areas with fewer than three cases per 100,000 people were categorised as green zones.



population, in two years (Kashem et al., 2020); however, the goal was subsequently reduced to 70% (Nizam Uddin Ahmed, personal communication, 5 January 2023). The National Deployment and Vaccination Plan (NDVP) for COVID-19 under the Expanded Programme on Immunization (EPI) relied heavily on advice from the WHO's Immunization and Vaccine Development (IVD) team from the World Health Organization (WHO), which has worked closely with senior government officials and important partners in Bangladesh. The GoB began developing the NDVP with a budget of USD 196.7 million. The NDVP outlines the GoB's strategy for procuring, distributing, implementing, and keeping track of the COVID-19 vaccine(s), including criteria for prioritising access. The WHO National Immunization Technical Advisory Group's recommendations are incorporated into various policies and gazette directives that support these initiatives. The NDVP's planned priority of vaccine access aligns with the framework for inoculation recommendations developed by the WHO's Strategic Advisory Group of Experts on Immunization (SAGE). With help from the Bangladesh Asia Pacific Vaccine Access (APVAX) facility, the GoB put the NDPV into place in 2021 (BanglaNews24.com, 2020). The vaccination program is divided into three phases that rest on the GoB, the MoHFW, the Directorate General of Health Services (DGHS), and the EPI in Bangladesh.

Bangladesh started administering COVID-19 vaccinations on 27 January 2021, but its mass vaccination drive began on 7 February 2021, with more than 328,000 people registered at that time (Kamruzzaman, 2021) in over 1,000 vaccination centres. As of May 2022, over 250 million doses had been administered, and over 115 million people had received two doses of the vaccine ("Bangladesh's COVID-19," 2022). As of May 2022, over 250 million doses had been administered, and over 115 million people had received two doses of the vaccine ("Bangladesh's COVID-19," 2022). By early June 2021, less than 4% of Bangladesh's population had received two doses; one year later, the number had exceeded 68%.

According to the COVID-19 Vaccine Tracker[5], a total of nine types of vaccines were approved in Bangladesh as of 2 December 2022 ("Bangladesh's COVID-19," 2022).

[5] The COVID-19 vaccine tracker is run by associate professor Nicole E. Basta and Professor Erica E. M. Moodie, at the Department of Epidemiology and Biostatistics in the School of Population and Global Health at McGill University, along with their COVID-19 team of experts in epidemiology, vaccinology, public health, infectious diseases, biostatistics, and related fields. The database draws on publicly available data sources, and it has been updated until 4 March 2023.

**Table 1: Approved vaccines in Bangladesh**

| Vaccine name | Vaccine origin | Administered status |
|---|---|---|
| COVOVAX (Novavax formulation) | Serum Institute of India (SII) | Not administered |
| Moderna | Moderna (US) | Administered |
| Pfizer | Pfizer Manufacturing Belgium NV | Administered |
| Sputnik V | Generium Joint Stock Company (Russia) | Not administered |
| Sinopharm | Beijing Institute of Biological Products Co. Ltd (China) | Administered |
| Coronavac | Sinovac Life Sciences Ltd (China) | Administered |
| Janssen (Johnson & Johnson) | Janssen Vaccines (Netherlands)[6] | Administered |
| AstraZeneca | Oxford University (UK) and AstraZeneca (UK, Sweden) | Administered |
| Covishield (Oxford/ AstraZeneca formulation) | Serum Institute of India (SII) | Administered |

*Source: COVID-19 Vaccine Tracker, Bangladesh, 4 March 2023*

Even though Bangladesh had met its goal of vaccinating 81.0% of its total population of 169.4 million people by 25 February 2023, there still needs to be more information about what was purchased, how it was distributed, and how much the country spent on the pandemic. According to WHO reports, there were 29,445 deaths and 2,037,738 confirmed cases of COVID-19 between 3 January 2020 and 17 February 2023. A total of 350.5 million vaccine doses had been given as of 13 February 2023 ("Bangladesh: WHO Coronavirus Disease (COVID-19) Dashboard with Vaccination Data," 2023).

[6] Janssen Vaccines is the parent company of Janssen Pharmaceuticals, a subsidiary of the American company Johnson & Johnson.



**Table 2: Number of vaccines administered**[7]

| Vaccine | Administered | | | |
|---|---|---|---|---|
| | First dose | Second dose | Third dose | Forth dose |
| Oxford-AstraZeneca | 20,769,467 | 19,505,767 | 160,004,193 | 1,341 |
| Pfizer | 22,604,496 | 21,482,695 | 31,698,931 | 788,983 |
| Sinopharm BIBP | 56,689,472 | 55,075,652 | 1,610,654 | 342 |
| Pfizer–BioNTech | 18,840,614 | 8,116,168 | 0 | 0 |
| Sinovac | 27,591,818 | 25,594,008 | 8,121,809 | 0 |
| Janssen | -- | 58,1542 | 0 | 0 |
| Moderna | 3,778,926 | 3,547,557 | 8,481,643 | 0 |
| **Total** | **150,274,793** | **133,903,389** | **65,943,550** | **750,666** |

*Source: Health Information Unit MIS, DGHS, the Ministry of Health and Family Welfare of Bangladesh, updated 25 January 2023*

Table 2 shows that only seven types of vaccines have been administered in Bangladesh, whereas nine types of vaccines were approved for use (see Table 1). Bangladesh received BDT12 trillion (approximately USD1.12 billion) from the World Bank (USD500 million) and the Asian Development Bank (ADB) (USD940 million) to buy and ship COVID-19 vaccines in May 2021. However, this money could not be used to purchase Russia's Sputnik V vaccine, which has yet to be approved by the WHO (The Daily Prothom Alo, 12 May 2021). The WB and ADB prohibit the purchase of vaccines without the approval of the WHO. Even though Sputnik and Covidshield were approved for use, there are no clear reasons why they were not used in Bangladesh.

[7] https://old.dghs.gov.bd/images/docs/vpr/20230125_vac_all.pdf?fbclid=IwAR0E87hbLcqvqJrF6PnAim7j4EyAG3wx9g473eRco4i3V176KdGzc4TrPSw

## 1.2. Countries that assisted with vaccine supplies

The US, other bilateral partners, and the global COVAX facility[8], have given free vaccines to Bangladesh (U.S. Relations With Bangladesh - United States Department of State, 2022). However, the GoB also bought vaccines from Chinese and Indian manufacturers through bilateral agreements and the COVAX Cost Sharing Facility. On 5 November 2020, the GoB, the Serum Institute of India (SII), and Bangladesh's Beximco Pharma signed a tripartite agreement, wherein SII sent 30 million doses of the Oxford-AstraZeneca vaccine to Bangladesh through Beximco. Each dose cost USD4 (Rahman, 2021). However, the SII only provided seven million doses within the first two months of 2021, and India provided 3.2 million doses of the Oxford-AstraZeneca vaccine as a gift. Bangladesh was anticipated to receive five million doses monthly, but no shipments were made between March and April 2021 ("Bangladesh's COVID-19 Vaccine Stock to Run Out in One Month," 2021). Due to a vaccine ban at the SII in March 2021, it was unclear if people would get vaccines from there. Because there was no alternative source, the ongoing vaccination program in Bangladesh was stopped, and the GoB decided that no more first doses of the Oxford-AstraZeneca vaccine would be given after 26 April 2021 ("Bangladesh Running Out of Vaccines," 2021).

On 27 April 2021, Bangladesh's medicines regulator said that the Sputnik V vaccine from Russia could be used in an emergency. Although 40 million doses were ordered from Russia, they still had yet to arrive in Bangladesh as of March 2023 (Paul, n.d.). On 29 April, Bangladesh's drug regulator also approved the Sinopharm BIBP vaccine from China for emergency use, after which Bangladesh ordered 15 million doses of the vaccine. Moreover, 500,000 doses were also given as gifts. China tried to use this help to get what it wanted; it warned Bangladesh not to join the Quad Alliance and said that Dhaka's membership in the "anti-Beijing club" would cause "substantial damage" to bilateral relations ("Bangladesh receives," 2021).

The overwhelming majority of the people of Bangladesh have received vaccines from China. By June 2022, approximately 87.7% of all vaccines administered were from China (Sinopharm and Sinovac), compared to 6.8% from the US (Moderna, Pfizer, and J&J), and 5.4% from India (SII) ("Who Won the Vaccine Diplomacy in Bangladesh? CGS," n.d.). Bangladesh spent USD741 million to buy vaccines from China against an overall budget of USD940 million for vaccine purchases (Zahir, 2022). According to Health Minister Zahid Malek, the government spent about BDT400 billion (USD3.7 billion) on COVID-19 vaccines and the vaccination program. The health minister said, "we have given 10.2 million doses of vaccines in one day, which is a record [...] So far, we have administered approximately 220 million vaccines [...] Out of this, I have given 12.5 million doses of the first, 8.5 million doses of the second, and 5 million doses of the booster dose." (The Daily Prothom Alo, 10 March 2022).

[8] COVAX is led by the Coalition for Epidemic Preparedness Innovations (CEPI), GAVI, the World Health Organization (WHO), and UNICEF. Its goal is to speed up the development and production of COVID-19 vaccines and ensure that all countries worldwide have fair and equal access.



## 1.3. Research methodology

Two focus group discussions (FGDs) were held in Dhaka and Chottogram, where most indigenous peoples and Rohingya refugees live. Also, to get first-hand information, eight key informant interviews (KIIs) were held with medical professionals, rights activists, lawyers, journalists, and people from government institutions. The information gathered from the KIIs aided in understanding the GoB's practical implementation of the vaccine rollout campaign, and the problems that arose despite the Government's efforts to immunise its citizens.

The FGD and KII participant details are provided below:

**Table 3: Respondents of the Dhaka FGDs**

| Name | Affiliation | Date |
|---|---|---|
| Mr. Shafiqul Alam | Bureau Chief, AFP | 3 Dec 2022 |
| Anonymous 1 | Journalist, The Daily Star | 3 Dec 2022 |
| Dr. Mehjabeen Moushumi | Duty doctor, CCU, Dhaka Medical College, and Hospital | 3 Dec 2022 |
| Dr. Lokman Hossain | Uttra Adhunik Medical College Hospital | 3 Dec 2022 |
| Mr. Saimum Reza Piash | Senior Lecturer, BRAC University | 3 Dec 2022 |

**Table 4: Respondents of the Chottogram FGDs**

| Name | Affiliation | Date |
|---|---|---|
| Dr. Sujan Barua | District Health Superintendent, Chottogram | 27 Dec 2022 |
| Dr. Bidduth Barua | Deputy Director, Chottogram Medical University; Founder, Chottogram Field Hospital | 27 Dec 2022 |
| Dr. Md Abdur Rob | Medicine Specialist, Chottogram General Hospital | 27 Dec 2022 |
| Mr. Abu Azad | Staff Correspondent, The Business Standard | 27 Dec 2022 |
| Mr. Imam Hossain Raju | Staff Reporter, Dainik Purbokone, Chottogram | 27 Dec 2022 |
| Ms. Runa Ansery | Divisional Broadcast Journalist, Deepto TV | 27 Dec 2022 |

**Table 5: Respondents for KIIs**

| Name | Affiliation | Date |
|---|---|---|
| Dr. Kamran Mehedi | Senior Program Officer, Center for Vaccine Innovation & Access (CVIA) at PATH | 2 Jan 2023 |
| Dr. Tajul Islam A Bari | Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) | 2 Jan 2023 |
| Dr. Nizam Uddin Ahmed | Executive Director, Shastho Shurokkha Foundation; Vice Chair, GAVI CSO Steering Committee | 5 Jan 2023 |
| Dr. Iftekharuzzaman | Executive Director, Transparency International Bangladesh | 27 Dec 2023 |
| Anonymous 2 | Journalist, The Daily Prothom Alo | 27 Dec 2023 |
| Dr. Md. Tanvir Hossen | Deputy Program Manager, Expanded Programme on Immunization | 7 Jan 2023 |



# PART II: ON INFORMATION ACCESSIBILITY

Since 2011, Bangladesh has used the District Health Information Software 2 (DHIS2) to manage health data electronically[9], rather than on paper. The technological shift in information management was also seen when the country released two websites to keep its citizens updated with COVID-19 vaccine information. These government-led websites were the COVID-19 Vaccination Dashboard for Bangladesh (15 February 2023) and the Shurokkha website and app[10]. The first gives the most up-to-date information on vaccination status. It includes the vaccine brand, number of doses given, gender of the recipient, divisions and districts covered, and the trend in vaccine administration over time.

The second website tells people how to get vaccinated, who is eligible, how to register, and their vaccination status. Although these websites have been important national public health information sources, many people in Bangladesh lack Internet access and awareness of these web platforms. There were approximately 52.58 million Internet users in Bangladesh in January 2022 (Kemp, 2023), meaning that 112.58 million people (United Nations projections, Bangladesh population 1950-2023, 2022) were offline. Also, Islam et al. (2021) found that people only knew a little about vaccines in December 2021 and that their attitudes suggested they were unwilling to get the COVID-19 vaccination.

## 2.1. Information accessibility regarding vaccines

Bangladesh is still the leading country that receives vaccines through COVAX, and UNICEF is a critical partner in supporting these imports. UNICEF also provides technical assistance for the COVID-19 Vaccination Dashboard for Bangladesh. Until 2 December 2022, the COVID-19 Vaccine Dashboard "offered transparent, readily available, and thorough information on COVID-19 vaccine development and approvals around the globe, including Bangladesh" ("Bangladesh – COVID-19 Vaccine Tracker," n.d.). The COVID-19 Vaccination Dashboard for Bangladesh has all the information about how vaccines are given out in Bangladesh ("COVID-19," n.d.). The information in this dashboard comes from the Health Emergency Control Center, using DHIS2. The dashboard shows the doses that people get. Every vaccine has a batch number.

Bangladesh" ("Bangladesh – COVID-19 Vaccine Tracker," n.d.). The COVID-19 Vaccination Dashboard for Bangladesh has all the information about how vaccines are given out in Bangladesh ("COVID-19," n.d.). The information in this dashboard comes

[9] DHIS2 is the most common software used to build health programs for individuals or a national Health Management Information System (HMIS).

[10] https://surokkha.gov.bd/

from the Health Emergency Control Center, using DHIS2. The dashboard shows the doses that people get. Every vaccine has a batch number.

The EPI oversees all vaccine rules, including COVID-19 vaccines.[11] The EPI is required to keep documents about the distribution of vaccines. WHO and UNICEF established the "Vaccine Logistics Committee," under the control of the EPI, as the disease's spread accelerated (UNICEF, 2021). This EPI used the Surokkha app, leaflets, community announcements, mosque loudspeakers, vans, and press conferences to get the word out about mass vaccinations, even though it did not have many people to help (Md. Tanvir Hossen, personal communication, 7 January 2023).

The Directorate General of Health Services[12] (DGHS) is the primary source of official vaccine information. Since the campaign's inception on 7 February 2021, the DGHS has issued press releases about vaccination (Paul, n.d.). At first, the information was limited to the centre's name, the total number of dosage recipients, and the proportion of male and female vaccine recipients. On 25 May 2021, information about the vaccine name became available. The distribution of AstraZeneca-Covishield, SinoPharm, and Pfizer, the centres where they were provided, and the total number of people vaccinated there were accessible in granular and open data form. On 27 January 2021, Bangladesh's Department of Information and Communication Technology (ICT) publicly launched a web portal named Surokkha in English and Bengali to carry out the initial registration procedure for two doses of COVID-19 vaccines. The health department devised a vaccination plan and a web-based registration process.

When Bangladesh started giving out the Oxford AstraZeneca COVID-19 vaccine on 27 January 2021, more than 328,000 people signed up (Kamruzzaman, 2021). Users of the Shurokkha website could register to receive the new coronavirus vaccine. However, this website can only note vaccines, collect information about vaccinations, and give certificates in English and Bengali. It has no information about how vaccines are bought, when they expire, or how much they are used. Despite claims that the app version would go live in the Google Play Store on 4 February 2021, users faced

[11] The EPI was started as a test project in Bangladesh on 7 April 1979. It is now the most successful government project in the country. The Directorate General of Health Services (DGHS) of the MoHFW ensures that the routine public immunisation schedule and immunisation campaigns are safe and current. Development partners like UNICEF, the WHO, and GAVI help the EPI with important parts of the vaccine program, such as service delivery, vaccine advocacy and communication, surveillance, vaccine supply, quality, logistics, and program management. management. With help from UNICEF, the government buys vaccines for EPI. The government also works with the WHO and other development partners to plan and run the immunisation program. It is critical to strengthen the "Vaccine Logistics Committee", through which the EPI oversees vaccine distribution, as well as the EPI headquarters' ability to establish and manage vaccine programs across the country for both routine vaccinations and those related to COVID-19.

[12] Bangladesh's MoHFW includes the DGHS. This agency oversees health program implementation, management, policy planning, and administration. The ministry also receives technical support from DGHS. In 1958, Pakistan created the DGHS Directorate, which became the Directorate General in 1980. Two Additional Director Generals help the Director General run the DGHS, and line directors, deputy directors, assistant directors, medical officers, other officers, and support staff assist him in all of his duties.



difficulty downloading it for the first few weeks (The Daily Prothom Alo, 28 January 2021).

After registering at the Surokkha website, the appropriate vaccine centres first send registrants' information to the assigned hospitals. Depending on their daily capacity, the centres will text people to schedule appointments for vaccination using the DGHS software.

According to DGHS Director General Professor Nasima Sultana, however, people who register might not receive the shot on the registration day (The Business Standard, 5 February 2021). As registrations ramped up, the nation's vaccine waiting list grew exponentially. One of the leading daily newspapers reported that approximately 7.5 million people were in line for the vaccine, and 17.2 million people had registered but were still on the waiting list for vaccinations, an increase of ten million in just 12 days (Rahman, 2021). The FGDs in Dhaka and Chottogram suggested that the situation worsened when India stopped shipping to Bangladesh, putting 1.3 million people at risk of not getting their second dose. Due to a widespread crisis in Dhaka and other cities in August 2021, many people who needed the COVID-19 vaccine could not get it. Many people at various vaccination centres waited for hours despite receiving text messages from the relevant authorities regarding vaccination on the day in question. Others claimed they could not enter their centres due to excessive crowding and mismanagement. Contrary to the announcement by the DGHS, the majority of vaccination centres in several districts ceased administering the second dose in mid-August 2021, citing a shortage of the necessary vaccines.

The government opened in-person registration for Bangladesh's planned village-level COVID-19 vaccination to mitigate the digital divide. Potential vaccine recipients were asked to bring their national identity cards to the vaccination centres for registration and then be vaccinated immediately ("Walk-in vaccination centres in rural Bangladesh are likely," 2021). A similar program was offered to Dhaka slum residents. According to the FGD participants in Chottogram, the registration process for the vaccination program there was online, favouring privileged sections of society. As a result, people with Internet access could only register with the help of others. Dr. Iftekharuzzaman also mentioned the survey results from Transparency International Bangladesh (TIB), which showed that 74.4% of people who got a vaccine had to get help from someone else to sign up. In comparison, 25.6% could register online alone (Personal communication, 27 December 2022). At some vaccination centres that began in-person registration, this was cancelled due to complaints about service disruption (Bangladesh Stops on the Spot Registration at COVID-19 Vaccination Facilities, 2021). A big part of the problem is that online sites like Shurokkha could be more user-friendly. At the same time, village residents have union information centres, but people in urban slums or low-income neighbourhoods do not. "There is injustice in receiving a vaccination", said Professor Bay-Nazir Ahmed, formerly in charge of disease control at the Department of Health (The Daily Prothom Alo, 27 February 2021).

## 2.2. Informed consent and vaccine ethics

Consent forms are included in Bangladesh's guidelines for health professionals. However, consent forms in Bangladesh still need to improve, including by providing basic information on the document signatory's consent. The consent clause only has five short terms, which limits the administrator's responsibilities. For instance, one of the terms states, "I accept that the vaccine-related information has been explained to me face-to-face and online." Normal parts of written consent forms that discuss the risks, benefits, and effects of vaccines are not in the terms. The consent form also calls for the writer to say they have no known allergies, meaning nobody checks their medical history before administering the vaccine.

A department head at Bangabandhu Sheikh Mujib Medical University (BSMMU), who requested anonymity, told the media, "A standard consent form has much information about the medicine or vaccine. However, the consent form I signed did not include it. Nobody informed me of these risks when I registered." (Corona Vaccine Consent Form in the Country Is Incomplete, 2021). In the same way, a pharmacology professor at BSMMU said that the consent form needs to be changed immediately because it does not say anything about vaccinations (The Prothom Alo, 31 January 2021).

In speaking about the inadequacies of the consent form, Saidur Rahman said, "a form of immunity is given in the consent form". Vaccines' risks and side effects should be made explicit. A person can only consent after being adequately informed regarding the subject matter; it cannot be assumed that someone knows because they agree to the terms of the vaccine, which say that they have been told about the vaccine both online and in person. Rather, it needs to be clarified while registering online and on the form, and there needs to be more clarity regarding who gives face-to-face explanations (Modol, 2021).

## 2.3. Information accessibility on vaccine costs and procurement processes

Government data about vaccines, like which ones were bought, how they were bought, prices, expiration dates, and batch numbers, were not available, were kept secret, and could only be accessed by filing a Right to Information (RTI) application under the Right to Information (RTI) Act of 2009. It can take months or years to get data through an RTI. Most information about where the vaccines were bought, how much they cost, when they expire, and other details are spread out in many different publications; the researchers obtained it from anonymous sources. Even though government representatives attended meetings on vaccinations, their distribution, and their procurement, the outcomes of these sessions and a press release prevented journalists from reporting on them. Journalists had to confidentially gather information from unnamed sources (Interview 2, personal communication, 7 January 2023).

In response to a reporter's question about vaccine prices and total expenditures, the Health Minister said that the vaccines are bought under non-disclosure agreements (NDAs), so their costs cannot be shared (Correspondent, n.d.). In the end, the MoHFW did say how many vaccinations had been bought, and all of them had been bought with the approval of the Prime Minister, the CCGP, the Finance Department, and the



Ministry of Law (What was the cost of buying corona vaccine, what the health minister said, n.d.). However, even this information has not appeared on the government's website.

## 2.4. Information accessibility on waste management of COVID-19 vaccines

Bangladesh had poor medical waste management even before the pandemic, and at least 14,500 tons of medical waste were produced nationwide in April 2020 due to COVID-19 (Al Amin, 2020). Vials, syringes, sharps (needles), plastic packets (sometimes containing sharps and syringes), Personal Protective Equipment (PPE), and packaging materials (plastic, cardboard, and paper) were the primary waste types produced (Akter et al., 2021).

The Medical Technologists-Expanded Programme on Immunization (MT-EPI) conducted training in 495 of Bangladesh's Upazila (sub-districts) on how the vaccination program would be conducted, under the auspices of the GoB, including on "Waste Removal and Things to Do after Session" (Rayhan et al., 2022). The "MT-EPI Handbook on COVID-19 Vaccination" contains the details on vaccination waste disposal. However, this handbook remains unavailable, as does information about vaccine expiration or wastage (Dr. Tajul Islam A Bari, personal communication, 2 January 2023).

**Table 6: Three phases of COVID-19 rollout in Bangladesh**

| Phase | Stage | Population (%) | Population (number) |
|---|---|---|---|
| 1 | I.a. | 3 | 5,184,282 |
| | I.b. | 7 | 12,096,657 |
| 2 | II | <20 | <34,561,877 |
| 3 | III | <40 | <69,123,754 |
| | IV | <80 | <138,247,508 |
| TOTAL | | | 138,247,508 |

*Source: Government of Bangladesh, Ministry of Health and Family Welfare (MoHFW), Directorate General of Health Services (DGHS), 2021; National Deployment and Vaccination Plan for COVID19 Vaccines in Bangladesh, 3 February 2021. Dhaka.*

Bangladesh tried to follow the SAGE Values Framework for COVID-19 during its vaccination rollout ("WHO SAGE Values Framework for the Allocation and Prioritization of COVID-19 Vaccination," 2020), However, it could only achieve a subset of the target framework due to the scarcity and nature of the vaccines (Dr. Tajul Islam A Bari, personal communication, 2 January 2023). As time went on, Bangladesh got better at storing vaccines and was able to make up for the shortage.

In May 2020, the GoB published a National Preparedness and Response Plan for COVID-19. Bangladesh was among the first countries to submit a comprehensive NDVP. At first, the GoB focused on high-risk groups, such as health workers directly involved in the COVID-19 response, frontline workers, and patients with weak immune systems. Later, it slowly expanded to other groups, such as the elderly, adults with comorbidities, education sector employees, and transportation workers (Kashem et al., 2020).



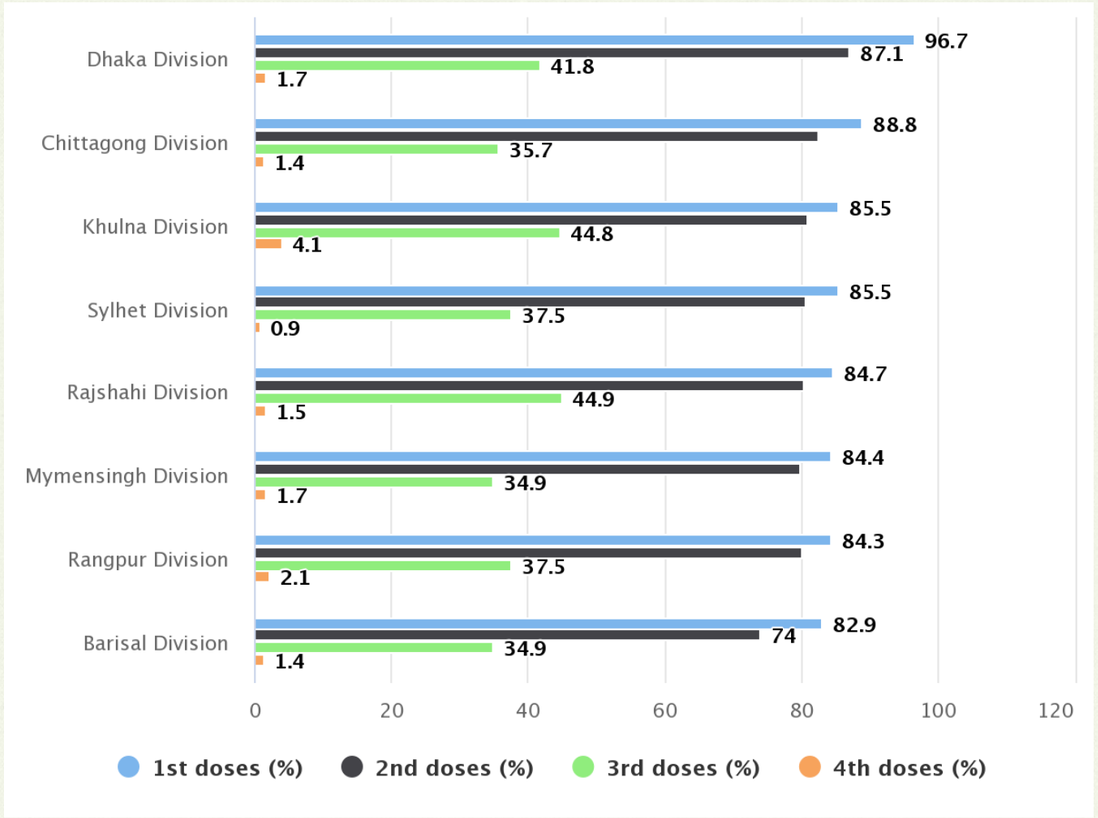
**Table 6: Three phases of COVID-19 rollout in Bangladesh**

| No. | Group |
|---|---|
| 1 | Government health workers |
| 2 | Non-government health workers |
| 3 | Freedom fighters (Mukti Bahini) |
| 4 | Member of the law enforcement forces |
| 5 | Members of the force involved in preventative measures |
| 6 | Essential staff for state management |
| 7 | Elected public representatives |
| 8 | Media personnel |
| 9 | Employees of the city corporations and municipalities |
| 10 | Religious representatives |
| 11 | Employees involved in burial services |
| 12 | People involved in essential care |
| 13 | Employees in sea-rail-airports |
| 14 | Government employees from the ministry level to upazilas |
| 15 | Bank employees |

*Source: All your questions regarding the COVID-19 Vaccine, Bangladesh Rural Advancement Committee, 2020.*

Daily national newspaper Prothom Alo said that migrant workers, medical students, residential students at government universities, and law enforcement officers would get priority vaccinations (The Prothom Alo, 21 January 2021). For this purpose, different ministries were tasked with preparing a recipient list (Tasneem et al., 2021). However, sanitation workers, trash collectors, cleaners, and other informal workers who were exposed to the virus were left behind. This is a clear example of unfairness.

**Chart 1: Percentage of vaccination coverage by administrative division as of 2 February 2023**




*Source: DHIS2, 2023.*

As seen in Chart 1, people in all eight divisions received at least the first dose of the vaccines,[13] but declining rates of coverage for subsequent doses. The GoB websites only provide data on the total number and percentage of people in a division who received a dose; there is no specific information about how many vaccines were given to vulnerable groups.

Bangladesh achieved progress in providing at least one dose of a vaccine to its population. However, some suggest that vaccines were not given to vulnerable people (Transparency International Bangladesh, 2022). Although a policy brief from the Centre for Peace and Justice showed survey data suggesting positive trends in vaccine outreach to marginalised populations in June 2021, with 81% of respondents familiar with the government-run immunisation campaign that began in February 2021 ("Voices from the Margins Building Evidence for Inclusive Policy Responses to COVID-19 in Bangladesh — Bangladesh," 2022), only 60% of respondents believed

[13] The administration of Bangladesh is divided into eight divisions.



that their immunisation was adequate.

Even though the survey found encouraging trends in vaccination outreach, it also found issues related to the online registration procedure, the insufficiency of the mass immunisation programme, and stigma (Centre for Peace and Justice, 2021). The respondents of the Centre for Peace and Justice survey were worried about how vaccines would work and their potential side effects, causing people to be hesitant about getting vaccinated. Moreover, rural areas' lack of technological access delayed the registration process. The Health Minister told people in the local government that people were encouraged to get vaccinated by sending letters and giving instructions over the phone (Al-Masum Molla, 2021). The GoB took the initiative to involve community healthcare centres and union digital centres; however, its efforts were insufficient to reach remote areas (Tasneem, 2021).

The most common reason people were unwilling to be vaccinated was "distrust" of the vaccine (BRAC Institute of Governance and Development, 2021). Several studies have shown that people in urban slums are not interested in becoming vaccinated (Centre for Peace and Justice, 2021; BRAC Institute of Governance and Development, 2021). Another issue was the lack of inclusion of marginalised communities, specifically in remote areas. Because of their marginalisation, these community members often must comply with orders or strict national policies without being able to participate in or fully consent to the policy-making and implementing process. They lack information about why specific guidelines or policies are made. Also, it was noted that people in these communities were more likely to believe false or misleading information because of how they thought about the government in general. All of these issues arose during the pandemic.

On the other hand, it was clear that these communities relied heavily on their local leaders and communication methods to get policy and information and act on it. (Centre for Peace and Justice, 2022). Many people did not know they had to follow such a policy because it needed to be explained better. Other studies suggest that disinformation about the COVID-19 vaccination — including the idea that vaccines alter humans' DNA — negatively impacted people's perceptions (Nizamuddin Ahmed, personal communication, 7 January 2023).

In 2021, the MoHFW sought assistance from NGOs and foreign organisations to reach out to people living in remote areas. For instance, PATH helped the MoHFW to conduct a vaccination campaign in the hard-to-reach Kurigram district, where they vaccinated 65,000 people in two days (Kallen, 2022). Also, the WHO gave technical advice, built up Bangladesh's ability to coordinate, and helped build up the Rohingya community's readiness for a safe and effective vaccine rollout ("WHO Coronavirus Disease (COVID-19) Dashboard," 2020).

Because of the COVID-19 situation in India, there was a shortage of the Oxford-AstraZeneca vaccine for the vaccination campaign in Bangladesh. The government allocated COVAX assistance to immunise the Rohingya community living in Cox's Bazar. The GoB did not initially include the Rohingya population in the national vaccination campaign when it was started in early February 2022, because of the vaccine crisis in

India; however, later on, the GoB signed a revised version of the NDVP that included the Rohingya population as a target group, using the same progressive strategy as for the host community (WHO- South-East Asia, Bangladesh, 2021).

Bangladesh was one of the first countries to vaccinate refugee children and adolescents. In June 2020, more than 110,000 Rohingya refugee children and adolescents residing in Cox's Bazar camps received their first dose of COVID-19 vaccination (UNHCR Press Release, 2022). According to an IOM report (Khandaker, 2022), the Bangladesh National Committee on COVID-19 Vaccination said the COVID-19 vaccine would be given to the Rohingya living in Cox's Bazar as part of the NDVP in July 2021, with priority given to those 55 years or older. Approximately 33,386 refugees in this age group received two vaccines during the first phase of the vaccination campaign in August-September 2021 (IOM, UN Migration, 2021). On 1 December 2021, the GoB initiated the second phase of COVID-19 vaccination for all Rohingya refugees 18 years and older (IOM UN Migration, 2021). In collaboration with the WHO and others, between August 2021 and February 2022, the GoB ensured that 88% (379,320) of the Rohingya population over 18 received the vaccine.[14] A third vaccination campaign, held in May 2022, aimed to vaccinate anyone under 18 without a first or second dose; during this time, another 44,766 people received their shots in only eight days. According to the WHO, 83% of people aged 18 and over have already received two doses of the vaccination (WHO, South-East Asia, Bangladesh, 2022). This data shows that Bangladesh took the initiative in vaccinating its displaced populations.

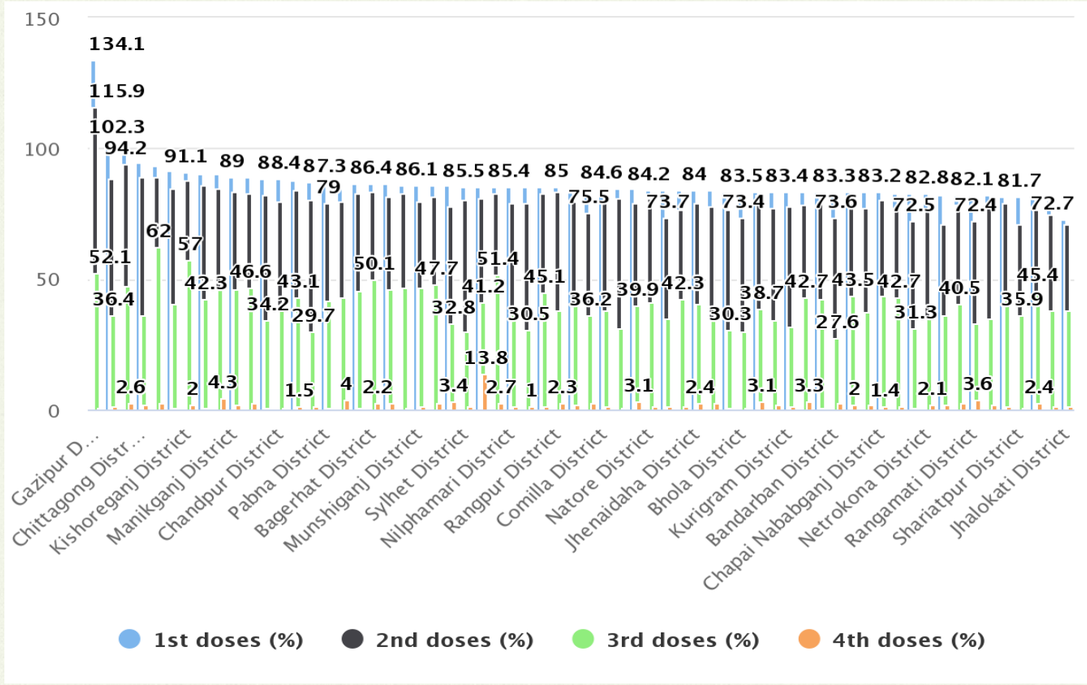
The transgender[15] (popularly known as Hijra in Bangladesh) community also faced difficulty registering for the COVID-19 vaccine. The Hijra community has been left out as its members do not have birth certificates or national identity cards (NID). The DGHS stated in August 2021 that authorities would arrange vaccines for the Hijra community if any organisation or community directly approached the MIS of the DGHS (Deepto, 2021). NGOs played a significant role in vaccinating the transgender community; they went door to door with vaccines to immunise these people, who were not able to get vaccines from the vaccine centres because they were not able to register for the COVID-19 vaccine due to complexities related to birth certificates or national identity cards. The FGD in Chottogram, on the other hand, suggested that steps were taken to vaccinate the Hijra community. (Focus Group Discussion, Chottogram, 20 December 2022)

[14] People under the age of 18 were yet to get the first or second dose of the COVID-19 vaccine.

[15] "Transgender" refers to a person who transitions their identity from man to woman or woman to man.



**Chart 2: Percentage of first, second, third, and fourth doses of vaccines administered, by district, as of 2 February 2023**




*Source: DHIS2, 2023.*

The information helps to show how doses were administered. The COVID-19 vaccination dashboard for Bangladesh in Chart 1 shows how many people got their doses out of the total population in each division. Chart 2 depicts the percentage of vaccine coverage in each of Bangladesh's districts.

In August 2022, Bangladesh started its vaccination campaign for school children ages 5-11 (Sakib, 2022). Children under five years old are yet to be included. In Bangladesh, 33,192 out of an estimated 3-3.3 million children did not receive vaccines. However, the number of zero-dose children[16] is lower than other lower-income and higher-income countries of South Asia. The GoB has proposed a research study to resolve the issue (Md. Tanvir Hossen, personal communication, 7 January 2023).

Ensuring vaccine equity in Bangladesh has faced challenges. However, the GoB and other actors took the initiative to vaccinate Rohingya communities living in camps in Bangladesh and people in hard-to-reach places. The information from the KIIs and FGDs shows that the first and second doses of the vaccine were also given to vulnerable people, also known as the "floating population".

[16] "Zero-dose children" refers to children who failed to receive any routine vaccination (Cata-Preta et al., 2021).

However, some news reports and Dhaka FGDs participants' primary data suggest that vaccine inequity towards marginalised groups has worsened due to inefficiencies and negligence in the planning and execution of vaccination programs at the national level. For instance, on 7 February 2021, the nation started immunising against COVID-19, but vaccinations for pregnant and nursing mothers did not begin until 2 August 2021, following the recommendation of the National Immunization Technical Advisory Group established by the MoHFW's Health Care Department.



# PART VI: ON ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

The Bangavax vaccine, formerly known as "Bancovid", has made headway but still needs to be rigorously tested on people to allow Bangladesh to manufacture vaccines. Bangavax is an mRNA vaccine, and testing on monkeys showed that it is safe and 100% effective in that context (Globe Biotech Publishes Bangavax Results of Tests on Monkeys, 2021). It has also been successfully tested against 11 COVID-19 variants, including the Delta variant. In November 2021, Globe Biotech Limited received ethical authorisation from the Bangladesh Medical Research Council (BMRC) and the Director General of Drug Administration (DGDA) to conduct the first human trial. Subsequently, the WHO added the Bangladeshi vaccine to its candidate list.

The BMRC, the DGDA, and the MoHFW approved Phase I clinical trials on 17 July 2022 (Globe Biotech Publishes Bangavax Results of Tests on Monkeys, 2021). It is important for Bangladesh to follow India's lead in developing vaccines and increasing the world's supply and production, to balance the public's interest with the exclusive right to make, use, distribute, import, or sell vaccines for profit without the patent owner's permission. Some companies, like AstraZeneca, have yet to sign licensing agreements with other countries to make vaccines there. With the help of AstraZeneca contracts, the SII can work on making vaccines and increase their production and supply worldwide.

In October 2020, India asked the World Trade Organization's 164-member TRIPS Council to temporarily lift the vaccine patent in order to make and sell it in India and beyond. It said the waiver would help in making vaccines and fighting the pandemic by letting countries with the production infrastructure make drugs, related technologies, and medical products like treatments, diagnostic tests, and therapeutic equipment. In this case, countries like Bangladesh claim they have the production capacity and are interested in developing the COVID-19 vaccine. Khatun (2021) says that if Bangladesh's technological skills improved, it could increase its pharmaceutical products to meet domestic and international demand by making COVID-19 vaccines. If this happens, there is a high possibility of making enough Bangavax vaccines to meet demand. However, bureaucratic approval processes for vaccine development would also need to move faster.

Since the government has access to approximately 24 crores (240 million) vaccine doses from various sources, it plans to purchase these vaccines for around BDT17,000 crore (USD170 billion) during the 2022-2023 fiscal year. The amount exceeds the BDT14,200 crore (USD142 billion) budgeted for vaccinations during the fiscal years 2021–2022. It includes transportation costs and other costs, such as those related to giving the injections. To purchase 10.5 crores (105 million) doses from two Chinese drug manufacturers under the COVAX facility, the Finance Ministry released BDT6,299 crore (USD741 million) of the BDT7,990 crore (USD940 million) it received from the ADB

(Asian Development Bank, 2021). The funds come from various development partners in the form of loans. According to Finance and Health Ministry representatives, the allocation will be subject to a recalculation once the 2020–21 fiscal year is closed.

Bangladesh has been getting vaccines from other countries like China and India up until now. Nevertheless, the methods by which vaccines are purchased and the lack of transparency have frequently been raised as causes for concern. In one instance, despite apparent warnings that Pfizer vaccines procured from US were to expire on 30 November 2021, the GoB launched a mass vaccination programme from 1-10 December 2022; since then, there has been conflicting news of a few incidents, with one claim that the expired vaccines were returned (Dr Md. Tanvir Hossen, personal communication, 7 January 2023), and an opposing claim that the WHO had permitted the prolonged use of the vaccines till 28 February 2023 (Dr Tajul Islam A Bari, personal communication, 2 January 2023).

In January 2021, the MoHFW was allocated BDT 71,931,450 (USD672.3 million) under the "Coronavirus Outbreak Response Fund" for the implementation of a vaccination program aimed at the prevention of coronavirus, including purchase, transportation, and storage. Among these was the allocation for the purchase of vaccines: BDT62,843,680 (USD58.74 million). Instructions were given to follow the Public Procurement Act 2006 and the Public Procurement Rules 2008 concerning the expenditure of this money. However, in the case of vaccine purchases, there needs to be more attention paid to following the said Act and other relevant laws in this government procurement.

Several rules about how the government buys things were broken when the Covishield vaccine was bought from the SII. The procurement rules say that the procurement plan and contract amendment notice must be posted on the Central Procurement Technical Unit (CPTU) website if the price of the works, goods, and related services is BDT10 million (USD1 million) or more. The GoB failed to post the GoB's plan to buy the Covishield vaccine or the notice that the GoB is signing the contract with SII on the CPTU website, as required per section 16 (11) of the procurement rules.In addition, Rule 75(3) states that negotiations can be done with a single bidder in the case of a direct purchase. Nevertheless, no bargain was observed in the purchase of this vaccine.

A third party, Beximco, was inexplicably made responsible for bringing vaccines into Bangladesh. As a result, Bangladesh had to buy vaccines at a higher price (USD5) than countries in the European Union (USD2.19), India (USD2.8), the African Union (USD3), and Nepal (USD4). In other countries, such as Nepal, the vaccine was purchased directly from the SII through the Government Pharmaceutical Corporation in Sri Lanka. In Bangladesh, an additional one dollar (about BDT84) was paid to a third party for transporting and storing the vaccine, resulting in a third party profit of about BDT77 (about USD0.70) per dose of vaccine. Thus, it profited BDT38.37 crore (USD38.37 million) by supplying the first five million doses of the vaccine; if it supplies three crores of vaccine doses as per the contract, its total profit will be BDT2.31 billion (about USD21.59 million). If the government of Bangladesh had purchased the vaccine directly from the SII, money would have been saved per dose, and another 68 lakh vaccines could have been contracted.



Additionally, there have been political conflicts and remarks about unethical procurement agreements. The Vice Chairman of Beximco Pharma is a member of the ruling party in Parliament and the Prime Minister of Bangladesh's Private Industry and Investment Advisor. Beximco Pharma's director is also a Member of Parliament. Since the Representation of the People Order, 1972, Article 12(k), states that Members of Parliament cannot have a business relationship with the Government over any business projects, this has created a bitter controversy. However, Beximco Pharma is still buying vaccines from SII as part of a tripartite agreement. None of these troubling events were publicly shared or officially handled with due care.

According to the TIB report, the cost of buying vaccines is expected to be between BDT1.3-1.7 trillion (approximately USD1.21-1.58 billion), less than half of the BDT4 trillion (USD3.7 billion) announced by the Health Minister. TIB criticised the MoHFW for not being more transparent about how much it costs to buy and distribute vaccines (BBC, 12 April 2022). In a press conference, the health minister called TIB's information baseless and said that TIB had provided misleading information to tarnish the country's image (TIB's Report on Health Sector Is Wrong: Health Minister, 2021).

Bangladesh got the COVID vaccine in four ways — through gift, donation, direct purchase, and shared purchase. On 23 August 2022, the MoHFW received 10 million doses of Pfizer vaccines from COVAX (USA Embassy Dhaka, 2022). The US vaccine donations total 85 million doses, or over two-thirds of all COVID-19 vaccines, to Bangladesh until August 2022. The US also supports Bangladesh's national COVID-19 vaccination campaign in other ways. To support Bangladesh's 64-district COVID-19 vaccination rollout, around 51,000 healthcare providers and workers were trained on vaccine safety (The Dhaka Tribune, 2022). The US gave 18 freezer vans, 750 freezer units, and 8,000 vaccine carriers to move 57 million vaccine doses to remote areas so that 47 million people could get vaccinated. US COVID-19 development and humanitarian aid to Bangladesh exceeds USD140 million. By contrast, China gave 500,000 Sinopharm vaccines to Bangladesh on 12 May 2021, and another 600,000 Sinopharm vaccines later (The Daily Prothom Alo, 2021).

Meanwhile, Bangladesh is getting 4.8 million doses of the Oxford-AstraZeneca vaccine from Saudi Arabia and Poland, free of charge. France gave two million doses of the vaccine to Bangladesh. Lithuania said in a statement that it would send about 445,000 doses of the Pfizer vaccine to Bangladesh, but changed course in March 2022 after Bangladesh abstained from voting on the UN General Assembly resolution holding Russia responsible for the attack on Ukraine (Lithuania Cancels Decision to Donate Covid Vaccines to Bangladesh After UN Vote on Russia, 2022). Lithuania, cherished by the West, punished Bangladesh to this extent; it also said it will stop delivering vaccines to Bangladesh as part of the UN's COVAX vaccine distribution program. From January 2021 to May 2022, UNICEF provided over 190 million COVID-19 vaccines to Bangladesh in one year under COVAX. According to the organisation, Bangladesh has received the most vaccinations under COVAX.

Bangladesh's costs for its vaccination programme was substantially higher than other countries. Despite being one of the least developed countries, Bangladesh

pays BDT1,500 (USD14) per dose for COVID-19 vaccines, significantly higher than its neighbours (Morol, 2020). Bangladesh had to pay USD5 for vaccines, more than the European Union (USD2.19), India (USD2.8), the African Union (USD3), and Nepal (USD4). By April 2022, Bangladesh had received 296.4 million doses of vaccines, of which 92 million came directly from China and India. Subsequently, purchased dosages increased in cost. When DGHS Director General Abdul Basar Mohammad Khurshid Alam was told about the high prices for an emergency health need, he said that the relevant ministry had negotiated the price of vaccines (The daily prothom Alo, December 2021). The Director General also refused to disclose the contents of the vaccine purchase contracts. Another issue was the involvement of third parties like Beximco Pharma, which, as discussed above, if excluded could have saved money on transportation and storage costs. In hindsight, if the GoB had procured the vaccines directly from the SII, it undoubtedly could have procured more vaccines with the money saved.

Even though Section 38(4)(c) of the Public Procurement Act of 2008 allows for the enforcement of remedial clauses and the inclusion of dispute or claim settlement procedures in contracts, this was not reflected in or included in the purchasing agreements. This raised concerns about problems and the unwillingness to fix them when it comes to buying vaccines during a unique international public health emergency. In addition to pricing issues, people are worried that the agreements between China and Bangladesh to buy vaccines could be used as a diplomatic tool. In the meantime, the government had already negotiated a deal to buy vaccines directly from China at actual market prices. China offered Bangladesh vaccines even before they were widely available. Mr Li Jiming, the Chinese ambassador in Dhaka, described evidence of China-Bangladesh anti-pandemic cooperation in a statement on 10 May 2021: he said that between February and April 2021, China gave Bangladesh 500,000 doses of the Sinopharm vaccine (Huaxia, 2021). Bangladesh Foreign Minister Dr A.K. Abdul Momen also wanted to purchase 40–50 million doses of Chinese vaccines and co-produce them. The vaccines arrived at a crucial political juncture when China warned Bangladesh against joining the so-called “Anti Beijing Club” — the Quad Alliance — or “substantially harm” bilateral ties. Even though Bangladesh quickly responded and reminded China of its independence and the right to make its own foreign policy, China agreed to sell Bangladesh 60 million Sinopharm vaccines (Hassan, 2021). Also, there was a price dispute when Bangladesh’s Cabinet Division accidentally said the vaccines cost USD10 per dose, even though China had sold the same vaccines to Sri Lanka for USD15 per dose. The price discrepancies had implications for future diplomatic agendas.

The massive quantity of vaccines purchased from China may have other diplomatic consequences. According to a statement from the DGHS, out of 285,882,959 vaccine doses administered across Bangladesh, 159,514,745 were Chinese vaccines as of 19 July 2022 (“160 mln,” 2022). Moreover, Bangladesh’s budget for vaccines was USD940 million, and the country spent USD 741 million on vaccines from China. The AstraZeneca vaccine was the first type of vaccine distributed, but this slowed to a trickle from April-July 2021 before starting up again in August 2021. Sinopharm produced the majority of vaccines from that point onward in 2021. Early in 2022, Pfizer products briefly enjoyed a rise in use, but by the end of February, Sinovac



products had taken the lead. In August 2021, Moderna became popular quickly, but the other vaccines mentioned above sold more (Zahir, 2022).

Countries have always used their ability to get, make, and distribute vaccines to show their power at home and abroad. China will be no different (Sazid, 2021). The large-scale vaccine production and the ties of diplomacy have, until now, made Bangladesh dependent on China. A Memorandum of Understanding (MoU) was signed on 17 August 2021 by the Bangladeshi Government, Sinopharm of China, and Incepta Vaccines Ltd. of Bangladesh, under which the local vaccine manufacturer agreed to make five million export-quality doses of the Sinopharm COVID-19 vaccine monthly (The Diplomat, 2021).

Effective management and monitoring of the vaccine processes are two ways to stop problems with the way vaccines are given out. In the absence of either, there will be a gap in vaccine equity and transparency. According to a TIB study, mismanagement was observed in the vaccination programmes scheduled in the vaccination centres (Governance Challenges in COVID-19 Vaccine Delivery - Transparency International Bangladesh (TIB), n.d.).

# PART V: CONCLUSION AND RECOMMENDATIONS

Even though the international community needs to work together to maintain vaccine equity, a faster solution could be found if Bangladesh could make its vaccines. People in the country can feel more assured about the availability and affordability of COVID-19 vaccines, thanks to the development of Bangavax, though it remains unknown if the Bangladeshi vaccine will work when tested on people and if it will be used nationwide with the help of strong political leaders committed to making vaccination plans that are both thorough and affordable. Even though there is enough capacity to make vaccines, more technological progress may be needed to ensure that new vaccines can be made if new COVID-19 variants appear.

Before Bangladesh can move forward with its existing vaccination plan, the current vaccine trials will need to be finished. The current plan depends a lot on vaccines made in China and India, which makes it hard to know about unseen political or economic motives. Even though there have been reports of expired vaccines made in China, Bangladesh has ignored them, leading to debates about whether diplomatic goals are more important than public health.

Also, the plans and activities of national vaccine governance are closed to the public, making it harder to put vaccine equity into practice. The government has refused to answer questions about public health. In this context, it is impossible to ignore the possibility of political self-interest and illegal financial gains because there are issues with how executive bodies bring in vaccines and because third parties like Beximco are involved. There are worrying signs that government officials have been involved in these vaccine deals in their personal lives and jobs. Because there are no checks and balances, this evidence raises questions about potential corruption. Because of this, it should not be surprising that the cost of vaccines is higher than expected and that most of Bangladesh's poor people cannot get booster shots.

Bangladesh is the eighth most densely populated country globally; the COVID-19 virus and its variants are highly likely to spread rapidly, and this is precisely what is happening. Nevertheless, workers, minorities, and the poor often must deal with the worst of these terrible effects. Vaccines, particularly booster shots, are in critical demand nationwide for people of all ages. However, the unequal distribution of vaccines has worsened because of inadequate planning and execution of national vaccination programs. There are hardly any accountability mechanisms, and the efforts to solve these problems are minimal.

The best way to deal with COVID-19 is to ensure that vaccines are distributed evenly and efficiently in Bangladesh. This can be accomplished by ensuring that Bangladesh is self-sufficient in vaccine production, that vaccine distribution decisions are clear, and that departments that make mistakes are held accountable. Bangladesh's health departments have been opaque, casting a negative light on the country's government and giving the impression that they may be using the pandemic to further corruption or strengthen diplomatic ties, contrary to their stated goals. Also, irregularities in how executive bodies and individuals get vaccines should be addressed, as they could hide political self-interest and illegal financial interests.

In order to deal with problems of good governance in the delivery of vaccinations:

- Governmental and institutional efforts should be made to distribute vaccines evenly, fairly, and effectively with utmost diligence and transparency.
- Designated public projects to vaccinate at least 80% of the population of Bangladesh should be planned and executed expeditiously, and information on their progress should be made public.
- Private institutions should be permitted to develop, and assisted in developing, vaccines to encourage vaccine self-sufficiency. The executive and industrial sectors should recognise the importance of necessary technological advancement and act accordingly.
- The supply of vaccines should be ensured according to the priority needs, considering minority communities, area-specific risks, and other morbidity and mortality risks.
- More awareness campaigns regarding COVID-19 vaccines should be promoted and continued until the vaccination target rate is achieved. These campaigns should emphasise the importance of vaccination and its benefits.
- The vaccination registration process and activities need to be improved. Registration through Union Digital Centres and vaccination centres at the grassroots level should be set up. Moreover, the online registration process should be made more accessible.
- All citizens should be able to register through easy and accessible means (e.g. through SMS, Union Digital Centre).
- A grievance mechanism should be introduced in vaccination centres.
- An investigation mechanism should be set up in cases of irregularities and corruption in vaccine distribution. Any vaccine import deals involving foreign countries and third parties should be made public and scrutinised.

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## ABOUT THE RESEARCHER

Rezaur Rahman Lenin is an academic activist and researcher based in Dhaka. He is a founding member of Nagorik (Citizen), a platform for human rights and the rule of law, which includes top rights activists, professors, researchers, and lawyers. Rezaur has worked with nearly five dozen human rights defenders, academics, artists, and journalists who have faced charges under Bangladesh's notorious Digital Security Act, which Dhaka enacted in 2018. He defends political detainees and trade union activists pro bono and has represented families of victims of enforced disappearances and extrajudicial killings under the Digital Security Act. Over the last decade, he wrote investigative human rights reports for Amnesty International, Human Rights Watch, and the Committee to Protect Journalists. He has also helped the International Criminal Court investigators, their victims' support unit, and the victims' lawyers pursuing atrocity crimes charges against Myanmar's military over their role in the 2017 crackdown. Rezaur is a Law graduate from the University of Dhaka and holds post-graduate degrees in Comparative Constitutional Law, Human and Digital Rights, Democratisation, NGO Studies and International Relations at the Sungkonghoe University, the University of Sydney, Lund University, and Central European University.

VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# EXAMINING INDIA'S TRYST WITH INDIGENOUS VACCINES:

## Role of Technology, Equity, Accessibility, and Diplomacy During COVID-19

DEVYANI CHATURVEDI

VACCINE TRANSPARENCY AND ACCOUNTABILITY

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# PART I: INTRODUCTION TO INDIA'S VACCINATION EXPERIENCE

## 1.1. State and trends of COVID-19 and vaccination in India

The outbreak of COVID-19 created a crisis in India. As in other countries, socio-economic challenges were magnified during this period as the Indian government imposed a lockdown on 24 March 2020, and many states continued to implement lockdowns where infections surged (Ministry of Home Affairs [MHA], 2020). India's lockdown was considered among the most stringent in the world. It halted all economic, commercial, transport, and educational activities, except essential services, magnifying challenges including unemployment, malnutrition, poverty, and the urban-rural divide (Iyer & Maiorana, 2021; MHA, 2020).[1]

On 20 January 2020, India reported its first COVID-19 case in Kerala. As of 29 March 2023, India has seen over 44,707,525 reported COVID-19 cases nationwide, and 530,841 reported COVID-19 deaths (WHO, 2023). India has been hit by three waves of the pandemic as the virus mutated into different variants, resulting in vulnerability over a long period of time. The fatality rate for the first wave was low, and the stringent lockdown imposed by the government deterred local transmissions. However, during the second wave (driven by the Delta variant) there were over 400,000 cases reported daily (Bhatt, Srivastava, Schmidt-Sane, and Mehta, 2021), leading the country into utter panic amid overwhelmed public health infrastructure and a slow vaccine rollout. The third wave, driven by the Omicron variant, was milder than the second, with fewer deaths and a faster peak.

The impact of this crisis was felt differently across diverse social groups. Studies identified migrant workers, women, "backward castes", and tribal and religious minorities as disproportionately affected (Dalberg, 2021; Iyengar & Jain, 2021; Behera & Dassani, 2021). Among the most impacted were migrant workers employed at construction or industry sites, at factories, and as domestic help in urban areas. The sudden lockdown led to loss of jobs and income, and individuals were forced to move from rural to urban areas in search of better wages and employment opportunities. It posed questions about their uncertain future in urban areas (Iyengar & Jain, 2021). With transport facilities suspended, many migrant workers were forced to take hazardous journeys or walk hundreds of kilometres to reach home, only to find their fellow villagers blocking their entry out of fear of transmission (Jesline, Romate, Rajkumar et al., 2021; Anonymous 2, personal communication, 4 December 2022).

[1] These essential services include defence, police, home guards, emergency forces, district administration and municipal bodies focused on water supply, electricity, sanitation, etc.



### 1.1.2. India's vaccination strategy

India's Ministry of Health and Family Welfare (MOHFW) formulated India's vaccination drive in January 2021. The strategy was informed by the recommendations of task forces, namely the National Expert Group on Vaccine Administration (NEGVAC)[2] and the Empowered Group on Vaccine Administration for COVID-19, which strived to identify scope for domestic vaccine production, methods of vaccine procurement, methods for vaccine distribution, and priority groups for vaccine administration (PIB, 2021). In light of this, the Government of India (GoI) operationalised its vaccination drive on 16 January 2021, intending to vaccinate 300 million Indian citizens belonging to the highest priority groups[3], at 3,006 vaccination sites across the country (WHO, 2021).

The GoI was responsible for formulation of the vaccination strategy, vaccine procurement, and vaccine administration, while state governments were to provide logistical and operational support (Kumar, Pandi-Perumal, Trakht & Thyagarajan, 2021). State governments were also responsible for creating awareness and local capacity building, such as ensuring adequate vaccination sites, human resources, and cold chain points across the state. Initially, vaccines were procured solely by the GoI and administered at government public healthcare facilities, government-run schools and colleges, and other locations, free of cost. However, as the GoI expanded the coverage of the vaccination drive, under the 'Liberalised Pricing and Accelerated National Covid-19 Vaccination Strategy' scheme, it permitted state governments and private stakeholders to procure vaccines directly from vaccine manufacturers and establish vaccination sites (MOHFW, 2021).

India has now administered over 2.2 billion COVID-19 vaccine doses, of which 1.2 billion are primary doses, 951 million secondary doses, and 227 million precautionary doses (Co-WIN, 2023).[4] Of India's population eligible for vaccination, 87.8% (1,084,173,000) had been fully vaccinated as of 16 March 2023 (Vaccinate-India, 2023).

### 1.1.3. Vaccines approved in India

The first vaccine approved by Indian regulatory authorities was Covishield, developed by Oxford-AstraZeneca and manufactured by the Serum Institute of India (SII) in January 2021. Since then, the GoI has granted restricted emergency-use authorisation to 12 vaccines (see Table 1). While some of these vaccines were domestically produced, the rest were developed by local pharmaceutical companies in collaboration with foreign-based vaccine developers. As the pandemic evolved, certain foreign vaccines such as Jcovden, Spikevax, and Vaxzevria were permitted to be used in India.

[2] This working group was constituted in 2020 and comprised of members from different government departments and ministries, with a few technical experts. https://pib.gov.in/PressReleasePage.aspx?PRID=1694439

[3] As per GoI policy, healthcare workers and frontline workers were identified as the top priority groups due to their vulnerability to COVID-19.

[4] Updated as of 18 February 2023.

An exception was the early entry of Sputnik V (Gam-COVID-Vac) developed by Gamaleya in Moscow, Russia. This entry was possible due to the regulatory approval of Dr Reddy's Laboratories, an Indian research and diagnostics centre, which conducted human trials with the Sputnik vaccine (Kumar, Pandi-Perumal, Trakht & Thyagarajan, 2021). Eventually, Russia's Russian Development Institute Fund and the Gamaleya Center for Epidemiology and Microbiology collaborated with Indian companies to manufacture the vaccine at a large scale.

**Table 1: COVID-19 vaccines in India**

| No. | Vaccine | Producer | Type of Vaccine | Country of Origin |
|---|---|---|---|---|
| 1 | Covishield (Oxford/ AstraZeneca formulation) | Serum Institute of India with Oxford | Non-replicating Viral Vector | India |
| 2 | Covaxin | Bharat Biotech | Inactivated | India |
| 3 | Jcovden | Johnson and Johnson | Non-Replicating Viral Vector | Developed in Netherlands, parent company from US |
| 4 | Sputnik V | Gamaleya | Non-Replicating Viral Vector | Russia |
| 5 | ZyCoV-D | Zydus Cadila | DNA | Developed in India by Cadila Healthcare |
| 6 | Corbevax | Biological E Limited | Protein Subunit | Developed in US; Vaccine licensed for development and production to Indian pharmaceutical company. |
| 7 | Spikevax | Moderna | RNA | US |
| 8 | Covovax (Novovax formulation) | Serum Institute of India | Protein Subunit | India |
| 9 | Gemcovac-19 | Gennova Biopharmaceuticals Limited | RNA | India |
| 10 | Sputnik Light | Gamaleya | Non-Replicating Viral Vector | Russia |
| 11 | Vaxzevria | Oxford/ AstraZeneca | Non-Replicating Viral Vector | Developed by Europe Medical Agency |
| 12 | iNCOVACC | Bharat Biotech | Non-Replicating Viral Vector | India |

*Source: COVID-19 Vaccine Tracker (as updated on December 2022)*

Covishield and Covaxin were the first vaccines to be approved under the condition of "restricted use in emergency situations" (The Hindu, 2021). Covishield, developed by the SII in association with Oxford-AstraZeneca, Codagenix, and Novovax, is an Adenovirus vector-based vaccine (Voysey et al., 2021). The vaccine's efficacy, safety, and immunogenicity data showed over 70% vaccine efficacy, which led to its approval. Thus, in the case of Covishield, the research and development and initial manufacturing of the vaccine was done through foreign assistance; however, mass production of the vaccine was undertaken by the SII (The Economic Times, 2021). The second vaccine approved was Covaxin, produced by Bharat Biotech International Limited in collaboration with the National Institute of Virology of the Indian Council of Medical Research (ICMR) (Kumar, Pandi-Perumal, Trakht & Thyagarajan, 2021).

It is interesting to note that an analysis of the administered vaccines by type identifies Covishield as India's most administered vaccine, with over 1.696 billion doses administered (Kanwal, 2022), followed by Covaxin (351 million doses), Corbevax (70 million), Sputnik (1.23 million), and Covovax (0.02 million) (Kanwal, 2022).

### 1.1.4. India's vaccine export policy and competition with China

After the national vaccination drive was launched, India's External Affairs Minister, Dr S. Jaishankar, announced the Vaccine Friendship (Vaccine Maitri) campaign, to export vaccines to other countries as a goodwill gesture. India sent vaccines to its South Asian neighbours and some low and middle-income countries of the Global South, among others (PIB, 2021).[5] This campaign focused on utilising India's vaccine production and delivery skills to meet the vaccine requirements of the Global South and contribute towards vaccine equity (Rai, 2021).

In consonance with India's "Neighbourhood First Policy", Bhutan was the first recipient, on 20 January 2021 (Rai, 2021). Over the next few months, the SII manufactured over 66.4 million doses and exported to 95 countries across Asia, Africa, the Middle East, and South America (Iyer & Maiorano, 2021). It sent approximately 20 million of these doses to the Global Alliance for Vaccines and Immunization (GAVI), sold 35.8 million through commercial contracts, and gave over 10 million as grants (Iyer & Maiorano, 2021). The Vaccine Maitri campaign had two implications. Domestically, it allowed the GoI to declare a victory over COVID-19, emphasising the efficiency and self-reliance of the elected government. Globally, it allowed India to earn goodwill with its immediate

[5] Some of the countries India exported vaccines to were Bangladesh, Nepal, Bhutan, Myanmar, Maldives, Mauritius, Seychelles, Sri Lanka, Bahrain, Brazil, Morocco, Oman, Egypt, Algeria, South Africa, UAE, Barbados, Dominica, Argentina, and Ukraine.

neighbours, with whom it shares a rocky relationship, and to strengthen its relations with its key partners. The campaign was also viewed as successfully countering China's aggressive vaccine diplomacy in the Global South (Iyer & Nachiappan, 2021).

In April 2021, a surge in COVID-19 infections, with 300,000 cases reported daily and 2,000 deaths in a single day,[6] brought into focus the shortages and weaknesses in India's public healthcare system (Johns Hopkins University and Medicine, 2021). The GoI was unable to increase the pace of vaccination despite increased demand, resulting in internal vaccine supply shortages and leading it to halt vaccine exports (Gettleman, Schmall, & Mashal, 2021). This halt meant that countries expecting vaccine doses from India did not receive them, creating shortages in other countries and hurting India's ability to position itself as a prominent global vaccine supplier; China took the opportunity to fill the supply gap for low-income countries in South and South-East Asia (Pal, 2021; Bose, 2021). By providing "a more diversified and stable" regional supply of vaccines, China emerged as a reliable alternative in the vaccine supply stream.

India remained one of the only global south countries not importing vaccines from China. Consultation with experts in India revealed that the GoI was apprehensive about importing Chinese vaccines because there were doubts regarding their safety — in particular the limited evidence, in the first phase of the pandemic, demonstrating the effect of the Chinese vaccines on the human body (Anonymous 5, personal communication, 10 December 2022).

As India pushed through this crisis, it re-initiated its vaccine diplomacy endeavours by exporting vaccines to over 100 countries and continuing to contribute to GAVI, the UN Peacekeeping force, and others. As of January 2023, India had exported 291.5 million vaccine doses, of which 224.6 million doses were sold and 14 million doses exported as grants (MEA, 2023). The largest recipients of India's vaccine exports have been Bangladesh (28 million doses), Myanmar (21 million), Nepal (9 million), and Bhutan (550,000), followed by Maldives, Sri Lanka. and Brazil (MEA, 2023).

## 1.2. Research methodology

The author conducted in-person and virtual interviews with academics, policy practitioners, members of international and domestic non-governmental organisations (NGOs), and officials from the GoI and Indian state governments.

[6] These figures are believed to be under-reported, with actual figures much higher.



**Table 2: Details of interviews**

| No. | Name | Position/ affiliation | Area of expertise | Type of stakeholder | Date of interview | Mode of interview |
|---|---|---|---|---|---|---|
| 1 | Dr Anurag Aggrawal | Dean of Biosciences and Health Research, Ashoka University, India; Former Director, CSIR Institute of Genomics and Integrative Biology, New Delhi | Health research | Academia; practitioner | 3 Dec 2022 | In-person meeting |
| 2 | Dr Shamika Ravi | Member, Economic Advisory Council to Prime Minister (EAC-PM); Non-resident Senior Fellow, Brookings Institution, Washington D.C.; Vice-President of Economic Policy, Observer Research Foundation (ORF) | Economics of development with a focus on finance, health, urbanisation, and gender | Academia; policy advisor | 19 Dec 2022 | Virtual meeting |
| 3 | Dr Raj Shankar Ghosh | Senior Advisor, Vaccine Delivery Program | Vaccination in India | Academia; policy practitioner | 16 Dec 2022 | In-person meeting |
| 4 | Dr Anant Bhan | Advisor, Sangath; Past president, International Association of Bioethics (2017-19); Key resource person for trainings in global health and public health ethics | Bioethics; global health and public health ethics | Academia and policy practitioner | 9 Dec 2022 | Virtual meeting |
| 5 | Dr Santosh Shukla | State Immunization Officer in Bhopal, Madhya Pradesh | Responsible for Vaccine immunisation, including COVID-19 vaccines | Government | 8 Dec 2022 | In-person meeting |
| 6 | Dr Bali Deepak | Professor of Chinese and China Studies, Jawaharlal Nehru University (JNU)), India | China expert | Academia | 13 Dec 2022 | In-person meeting |
| 7 | Anonymous 1 | - | Vaccine delivery system in India | NGO | 8 Dec 2022 | In-person meeting |

| | | | | | | |
|---|---|---|---|---|---|---|
| 8 | Anonymous 2 | Civil Servant (District Magistrate) from Chattisgarh, India | Policy implementation | Government | 4 Dec 2022 | Virtual meeting |
| 9 | Anonymous 3 | Civil Servant in Maharashtra | Policy implementation | Government | 4 Dec 2022 | Virtual meeting |
| 10 | Anonymous 4 | Chief District Medical Office | | Government | 7 Dec 2022 | Virtual meeting |
| 11 | Anonymous 5 | Consultant at a think tank | Health research | Academia | 10 Dec 2022 | In-person meeting |
| 12 | Anonymous 6 | Advisor to the state government in Madhya Pradesh | Policy implementation | Government | 7 Dec 2022 | In-person meeting |
| 13 | Anonymous 7 | Professor at a think tank | Health policy expert | Academia | 5 Dec 2022 | Telephone |

Primary interviews were triangulated with secondary research from government reports, official policy documents, and academic research. Data was also retrieved from COVID-19-related dashboards such as the Covid Vaccine Intelligence Network (Co-WIN) portal, the COVID-19 vaccine website of the Indian Council of Medical Research (ICMR), and Our World in Data.



# PART II: INFORMATION ACCESSIBILITY ON COVID-19 VACCINES IN INDIA

## 2.1. India's communication strategy

One of the first steps taken by the MOHFW in developing India's vaccination drive was to build a roadmap of its communication strategy, titled 'COVID-19 Vaccine Communication Strategy' (Ghosh, personal communication, 16 December 2022). The strategy identified five critical pillars through which information around COVID-19 vaccines and vaccination was to be disseminated: advocacy, capacity building, media and social media engagement, social mobilisation and community engagement, and Adverse Event Following Immunisation (AEFI) crisis communication (see Figure 1).

**Figure 1: Key elements of India's communication strategy**


*Source: MOHFW (2021)*

### 2.1.1. Advocacy

The GoI and state governments engaged with key influential stakeholders such as the Prime Minister, parliamentarians, politicians, and religious or faith-based leaders, encouraging them to utilise their

[7] The following video is an example of the videos and interviews created to inform the public on various themes surrounding vaccination: https://www.youtube.com/watch?v=Bzxe1x_2I4Y&ab_channel=DDNewsPanaji

[8] ASHA workers are volunteers from within the community who are trained to provide information and aid people in accessing benefits of various healthcare schemes of the government. More can be read on them here: https://indianexpress.com/article/explained/explained-who-asha-workers-women-healthcare-volunteers-who-7932479/

platforms to influence citizens to get vaccinated (MOHFW, 2021; Ghosh, personal communication, 16 December 2022). Vaccinations of national leaders were televised, and their vaccination experiences were recorded to inform the public. Meanwhile, this also acted as a trust-building mechanism (The Indian Express, 2021).

The GoI developed multimedia awareness campaigns and distributed leaflets at the household-level in different languages. Additionally, interviews and frequent question-and-answer sessions were conducted with experts from the medical field, which were nationally broadcast across television and social media outlets (The Indian Express, 2021; Ghosh, personal communication, 16 December 2022).[7] At the state and district level, local networks, including the local Panchayat (village council), Accredited Social Health Activist (ASHA) workers,[8] and political and religious leaders, informed people about the benefits of vaccination. These local networks moved door-to-door to spread awareness, but also to collect data regarding the number of people showing COVID-19 symptoms (Anonymous 2, personal communication, 4 December 2022). Often, government and medical officers posted in districts and villages travelled with health workers to raise awareness, as their academic and technical expertise was assumed to reassure citizens, ensure citizens' trust in these officials, and make them more receptive to the information being provided (Anonymous 2, personal communication, 4 December 2022; Anonymous 3, personal communication, 4 December 2022).

### 2.1.2. Capacity building

The pandemic revealed deep cracks in India's public healthcare system, and one challenge that emerged was a shortage of healthcare workers and frontline workers across India (Perappadan, 2019). This limited the country's ability to disseminate information and was a barrier to providing healthcare. Therefore, GoI, state, and local governments re-invigorated pre-existing community networks, such as those formed by ASHA workers and self-help groups, and supported the engagement of more personnel in the vaccination process. Through engagement with civil society, a network of people who could inform wider society of the ongoing vaccination drive was formed (Anonymous 1, personal communication, 8 December 2022). However, there were instances of citizens reporting little knowledge of the efficacy of vaccines — a few even believing that vaccines only had water in them — illustrating an information gap (Ghosh, personal communication, 16 December 2022).

### 2.1.3. Media engagement and social media

Anticipating that misinformation could negatively affect the vaccination drive, one of the GoI's first steps was to build a communication cell in the MOHFW, with a mandate to address misinformation around vaccine efficacy and the overall vaccination process (Anonymous 5, personal communication, 10 December 2022). This communication cell was replicated across all levels of government,[9] with each cell tracking instances of misinformation across social media forums (Ghosh, personal communication, 16 December 2022).

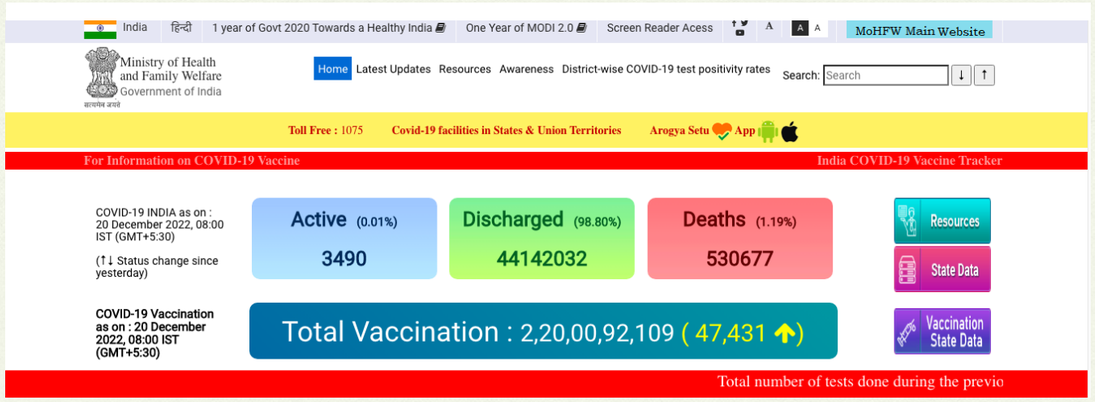
The GoI leveraged social media platforms by creating FAQ infographics, videos, animations, and other materials informing people of the vaccination drive. On the MOHFW's official website, it built a toolkit which provided information on government guidelines around vaccination, international travel, and digital vaccine records.[10] It also regularly published real-time updates on the number of COVID-19 cases in India, by state, and the number of cases treated and discharged (see Figure 2). The easy accessibility of such information for the public was a unique feature of India's vaccination drive and the GoI's communication strategy.

[9] At the state-level, Rapid Response Cells (RRC) were created to monitor vaccine eagerness, hesitancy, and misinformation.

[10] Link to the MOHFW's official website: https://www.mohfw.gov.in/



**Figure 2: COVID-19 Dashboard on MOHFW website**




*Source: MOHFW website*

A novel element of the GoI's communication strategy was the accelerated use of technology to make information more accessible. Nationally, two such applications are "Arogya Setu" and Co-WIN. The Arogya Setu mobile application aims to limit infection transmission (MEITY, 2021). The Co-WIN application functions as a registration site for vaccinations and a dashboard displaying the total number of vaccinations in each state and district in the country on a real-time basis. The dashboard captures inter-state and inter-district variations across India, allowing respective governments to ramp up awareness efforts in areas with low vaccination.

Technology is a critical enabler of information access to citizens, and several other technological interventions were adopted by state governments to disseminate information based on local needs. In the Indian state of Kerala, the local government launched an application called "GOK Direct-Kerala" to provide information related to COVID-19, government guidelines, helpline numbers, and vaccination information in a multilingual format (The Print, 2020). Similarly, in Chhattisgarh's Bastar area, a mobile application called "Bastar Noni" was developed to provide information to children and address their questions about health and COVID-19-related symptoms through animations, cartoons, and videos. The motive was to increase awareness of sanitation, physical distancing, and vaccination among children and their families (Anonymous 2, personal communication, 4 December 2022). Since Bastar is a rural region reliant on agriculture and affected by socio-political turmoil, such awareness campaigns were cornerstones of public health.

### 2.1.4. Social mobilisation and community engagement

In this pillar, the GoI focused on government-civil society collaboration in improving information accessibility on vaccination. At the national level, the GoI called on religious leaders and clerics to spread awareness about inoculation — of particular importance in rural areas, where faith leaders often hold greater influence. The Prime Minister and other elected government leaders met with such religious leaders and urged them to collaborate with their respective governments to dispel rumours about the

vaccination drive (Press Bureau of India, 2021). Such measures led religious leaders like M. Hasnain, from the city of Arrah in Bihar, to record a video message discussing his vaccination and post-vaccination experience and urging his fellow community members to receive vaccine doses (Times of India, 2021). Similarly, Hindu priests and Christian pastors across the country lent their support.

At the state and district levels, the government's strategy focused on organising orientation for officials, community leaders, healthcare workers, and others to support social mobilisation, mobilising priority groups which are traditionally hesitant about vaccines; and holding talks with village headman, religious/faith-based leaders, and medical facility owners to encourage them to support the drive (MOHFW, 2021). As a result of this strategy, healthcare and frontline workers in villages of Chhattisgarh, Odisha, and Arunachal Pradesh went door-to-door to vaccinate citizens. Certain districts and villages in states across the country witnessed ASHA and Methani workers (traditional health providers) travel across mountains, marshy lands, and desert fields to inoculate people (Anonymous 4, personal communication, 4 December 2022).

### 2.1.5. Adverse Event Following Immunisation (AEFI) communication crisis

The fifth pillar emphasised responding to post-immunisation crises. It focused on ensuring that information on the adverse effects of a vaccination were systematically revealed to the public, with an investigation conducted and reasons for the adverse effect provided (Ghosh, personal communication, 16 December 2022). It emphasised engagement with stakeholders such as political, faith-based and local leaders, and civil society members to improve outreach. Meanwhile, technology was also used to inform the public. Therefore, several communication channels were used to reach the public and, to an extent, these measures realised their goal; India reported an 84% vaccine acceptance rate (Dhalaria, Arora, Singh & Mathur, 2022). This was not uniform across all states in India. Some states reported vaccine hesitancy above 50%. Given the correlation between vaccine hesitancy and misinformation, then, one can safely assume that states experienced varied information accessibility around vaccines.

## 2.2. Barriers to information accessibility

As noted above, the government adopted measures to improve information accessibility. However, these efforts were criticised on two grounds: information asymmetry and over-bureaucratisation.

1. Information asymmetry
   The central government prepared platforms for widespread acceptance of the COVID-19 vaccination drive. The strategy emphasised the logistical and "opinion-based" aspect of the drive, with limited sharing of information and data related to scientific trials conducted during production of the vaccines (Anonymous, personal communication, 8 December, 2022). While expert groups and task forces closely monitored the nature of vaccines, including their safety, efficacy, and immunology, there was a lack of public information on the process. As a result, misinformation surrounding these vaccines significantly impacted perceptions, directly fuelling hesitancy.



2. Over-bureaucratisation
   The structure and functioning of the government in India do not support whistle-blowers (Anonymous 7, personal communication, 5 December 2022). This means that the individual cost of whistleblowing can often be higher than the cost of deterring a challenge, such as a surge in infections due to a new variant. Inevitably, this negatively incentivises stakeholders within the government to flag upcoming challenges. This has had two negative results: under-preparedness during the COVID-19 Delta variant, despite evidence of its seriousness, resulting in severe infections and deaths; and the public perception that the government is withholding information from its people.

# PART III: ENSURING EQUITY

India accounts for almost 18% of the world's population,[11] and a deeper dive into its demographics would reveal a high age dependency ratio of 49%, with approximately 8.6% of the population above the age of 60 years and 40% below the age of 18 years (MOSPI, 2016; Worldometer, 2023; World Bank, 2023). This means that India's population is highly vulnerable to infectious diseases, such as COVID-19, but also that the country needs to prioritise the protection of its vulnerable population through measures like vaccination. The vaccination programme was informed by the country's demographic landscape, identifying those who needed the vaccine first and subsequently utilising existing knowledge on mass vaccination campaigns to deliver vaccines across the country. In a dynamic country like India, equitability can be evaluated through the lens of access and affordability of vaccines: between states, between rural-urban areas, and between genders.

## 3.1. Measures adopted by the Government of India for equitability

### 3.1.1. Vaccine prioritisation and procurement policy

The vaccination program launched on 16 January 2021 adopted a needs-based approach in which specific groups were identified for prioritisation. These priority groups were identified based on their risk of getting infected by COVID-19.

At the same time, pre-existing shortages of specialised human resources in medical and paramedical fields also contributed to the prioritisation (Byatnal, 2020). The existing supply constraints informed the vaccine policy, leading to a phase-by-phase approach. The first phase, launched on 16 January 2021, initially targeted inoculating healthcare workers, given their high susceptibility, and was subsequently expanded to include frontline workers (WHO, 2021). The two groups account for 2.19% of the total population and require procurement of 60 million vaccine doses (Singh, Verma and Lakshminarayan, 2022).[12] Some policymakers also viewed their prioritisation as a trust-building initiative to reassure medical and frontline workers of their safety in their fight against COVID-19.

As per the strategy, the GoI was solely responsible for the procurement of required vaccine doses, which were then distributed to state and union territory[13] governments for vaccine administration (MOHFW, 2021; Purohit, Chugh, Bahuguna and Prinja, 2022). In January 2021, India granted an emergency use authorization to Covishield (manufactured by the SII) and Covaxin (manufactured by Bharat Biotech) for their use in the vaccination program.

In the second phase, the priority group within the vaccination program was expanded to include citizens above the age of 60 and those above 45 with comorbidities.[14] In this phase, the GoI engaged with private sector hospitals to increase vaccine coverage nationwide. As part of this arrangement, private hospitals could purchase vaccines from the government at USD2-3. Unlike government-run vaccination sites, where vaccination was free, in private hospitals, vaccination was chargeable; however, as part of GoI equitability and accessibility efforts, service charges for private units were capped at USD1.35 (Rs.250) (MOHFW, 2021; Hindustan Times, 2021). As can be viewed in Table 3, the vaccination program expanded to include vaccination for all citizens above the age of 45.

**Table 3: Priority sequence for vaccination in India**

| Phase | Priority group | Eligible population (in millions) | Estimated no. of vaccine doses required (in millions) | % of total population |
|---|---|---|---|---|
| 1 | Healthcare workers | 10 | 20 | 2.16 |
| | Frontline workers | 20 | 40 | |
| 2a | Senior citizens (over 60) and citizens over 45 years with co-morbidities | 138 | 276 | 10.07 |
| 2b | Population ages 45-59 | 209 | 418 | 15.27 |
| 3 | Population ages 18-44 | 597 | 1,194 | 43.57 |
| 4 | Population ages 15-18 | 74 | 148 | 5.41 |
| 5 | Population ages 12-14 | 46 | 92 | 3.39 |

*Source: WHO (2021); Singh, Verma and Lakshminarayan (2022)*

[11] 1.4 billion people.

[12] Assuming a 2-dose regime, wastage not factored in.

[13] India is a federal union comprising 28 states and eight Union Territories (UTs). State governments are elected while UTs are governed by the central government. States and UTs are further subdivided into districts and blocks.

[14] The Indian government had identified 20 comorbidities including heart, kidney and liver diseases and all forms of cancer, patients suffering from which could submit a medical certificate requesting for vaccination in Phase 2. A certificate attesting to such conditions was to be signed by a registered medical practitioner and digitally uploaded on the Co-WIN website during self-registration (Hindustan Times, 2021).

In the third phase of the vaccination program, the GoI strived to scale up vaccine coverage in India by expanding to the population above 18 years of age (MOHFW, 2021). It also liberalised the vaccine procurement and pricing processes, earmarking only 50% of the vaccines manufactured domestically; state governments and the private sector could procure the rest. The liberalisation of the vaccination program in this stage eventually led to increased involvement of the private sector, which contributed towards equitability as it allowed for more vaccination sites to be developed by private hospitals, which could vaccinate more people at a capped price. Meanwhile, the GoI and state governments continued to offer free vaccinations across the country, which cumulatively led to the convergence of affordability and accessibility as citizens who were eligible for vaccination and could afford to pay for it could visit private healthcare centres, indirectly reducing pressure from overburdened public vaccination centres. The government's strategy also envisaged this liberalisation policy as a mechanism to create parallel streams for vaccination, with state governments and private healthcare centres focusing on the procurement of vaccines for citizens ages 18-44 years while the GoI focused on the original priority groups (Purohit, Chugh, Bahuguna and Prinja, 2022).

On 7 June 2021, within a few months of phase three beginning, the GoI's decentralised approach was reversed, the state government's quota of vaccine procurement was removed, the private sector's quota was reduced to 25%, and the GoI's quota was increased to 75% (Ananthakrishnan, 2021). This change resulted from states reporting vaccine scarcity due to their inability to procure vaccines at high prices (higher than the price paid by the GoI), which led to the Indian Supreme Court rebuking the GoI and emphasising price neutrality (The Hindu, 2021). As a result, the GoI centralised vaccine procurement; it decided to procure vaccines on behalf of the states too. Another critique by the Supreme Court on vaccine distribution in phase three concerned the GoI's criteria for allocating vaccines amongst states. Allocation was based on three factors: the infection rate, which evaluated the active caseload in a state; the vaccination rate, which was computed through a seven-day average of vaccine consumption; and vaccine wastage. Although these factors were devised to improve efficiency and reduce vaccine wastage, they had negligible impact on the equitable distribution, as over 4.6 million vaccine doses were wasted in India in April 2021 (Nagarajan, 2021). Such data and reports on vaccine shortages indicated an equity challenge.

During fourth and fifth phases of the vaccine program, Covaxin and Corbevax were authorised for vaccination in children 15-18 years old and 12-14 years old, respectively. India is amongst the few countries that have expanded vaccine coverage to children, striving to deliver equitable healthcare through vaccination. For children below 12 years, Corbevax and Covaxin have been approved for usage by the Drug Controller General of India (DCGA); however, the GoI has not formally expanded the vaccination drive to this group (Sharma, 2022).

### 3.1.2. Developing the Co-WIN platform

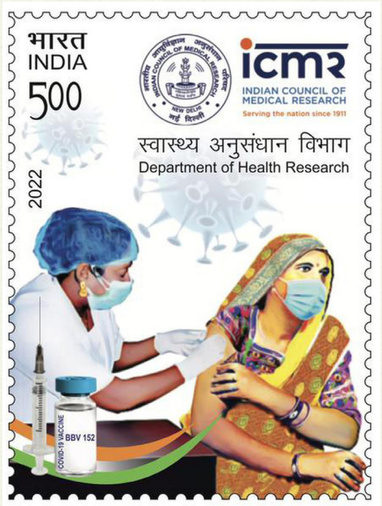
The second significant measure to improve equitability, especially in terms of improving vaccine accessibility, was the development of the Co-WIN platform. A cloud-based information and technology platform, Co-WIN provided data and information on vaccination centres, near and far; supported the scheduling of vaccination appointments through self-registration; generated digital vaccination certificates; and supported reporting of AEFIs.

From a policy perspective, the Co-WIN platform empowered Indians to make decisions regarding their vaccination experience. It allowed them to choose, based on availability, the vaccine they wished to be vaccinated with; it enabled them to choose the place, date, and time for their vaccination — a rare achievement in a low-income, populous country like India. The Co-WIN platform's support for nationwide vaccine access and affordability was remarkable. However, despite this incredible feat, certain structural challenges like low digital literacy and limited internet penetration continued to be hurdles in the realisation of equitability, as discussed further in section 3.4.

## 3.2. Inter-State variations in vaccines

Indian states and union territories received vaccine doses in the five phases of the vaccination program. The allocation of vaccines was driven by the infection rate, speed of vaccination rate, and vaccine wastage, resulting in some geographical areas being given higher priority in vaccination (Reuters, 2021). This prioritisation was done at both the national and the local level. In January 2022, the MOHFW reported that over 69.8% of the total adult population was fully vaccinated, and 93% of the adult population (above the age of 18) was vaccinated with the first dose (The Hindu, 2022). Image 1 is a commemorative stamp issued by the MOHFW and the GoI on successfully administering over 1.5 billion vaccine doses within a year of the program launch (PIB,2021).

**Image 1: Stamp issued by Government of India on COVID-19 vaccination drive's first anniversary**




*Source: The Hindu (2022)*

These stark differences between states were visible in registration for initial and subsequent vaccination. Nationally, of the identified 30 million healthcare workers and frontline workers, approximately 18 million had registered for vaccination, and only 11 million were vaccinated, demonstrating a slow pick-up in vaccination from the GoI, but also showing vaccine hesitancy. As seen in a study on state vaccinations in phase one by Pandey et al. (2021), these two trends were exaggerated in some states and minimal in others. The study identified that only four states (Gujarat, Rajasthan, Chattisgarh, and Uttarakhand) could vaccinate 50% of their eligible population. Pandey et al. (2021) linked poor state performance in phase one of the vaccination program to existing vaccine delivery infrastructure in the region; states with one vaccination site per 1,000 eligible people had lower vaccine coverage. Therefore, from the initial phase, weak vaccine delivery infrastructure played a prominent role in vaccine coverage in that state. This, in turn, indicates that a weak vaccine delivery system was the first barrier to vaccine equity among states.

The second barrier to achieving equity in vaccination was vaccine hesitancy. Vaccination rollouts have been slower in states like Nagaland, Manipur, Meghalaya, Mizoram, Tamil Nadu, and Punjab due to low vaccine acceptance rates (Dhalaria, Arora, Singh & Mathur, 2022). Vaccine hesitancy in these states has varied from 53% to 95%. This hesitancy was embedded in concerns around the safety and efficacy of indigenous vaccines such as Covaxin, especially since this vaccine was briefly suspended in European countries, the third trial phase of the vaccine was skipped, and it was approved under emergency use (Thiagarajan, 2021). Such concerns negatively impacted citizens' faith in the vaccination program and made them unwilling to be vaccinated. In some states, vaccine hesitancy was also fuelled by political motives; for instance, in Uttar Pradesh, the most populous state of India, the opposition party leader, Akhilesh Yadav, refused to be vaccinated due to his distrust of the Union government's vaccine (Hindustan Times, 2022).[15]

The third barrier was the digitalisation of vaccine registration on the Co-WIN platform. Vaccine registration became a challenge because only 31% of India's rural population uses the internet (KANTAR, 2020). Despite the initially slow coverage, India's vaccination campaign expanded as some of these challenges were resolved, such as by allowing walk-in registrations as well as online registration. In villages of many rural areas, citizens were approached by local government officials who registered on their behalf (Anonymous 2, personal communication, 4 December 2022).

Meanwhile, the decline in COVID-19 cases and interim results of Covaxin clinical trials affirmed citizens' trust in Covaxin and other indigenous vaccines (Pandey et al., 2021). The MOHFW's "Liberalised Pricing and Accelerated National COVID-19 Strategy" also expanded the scope of the coverage, allowing private hospitals and state government healthcare infrastructure to contribute towards improving equitability (MOHFW, 2021) and resulting in over 1.2 billion Indians having received a primary dose and 77% of the total population fully vaccinated (Co-WIN, 2023; Johns Hopkins Vaccine Tracker, 2023).

[15] Uttar Pradesh holds significant power in the Lower House of the Indian Parliament and is touted to be the decision maker of who will form the government.



## 3.3. Gender equity in vaccines

There exists gender inequity in access to vaccines in India. As per current data, there is a 10% gap between the number of men and the number of women who have been vaccinated. In the early phases of the vaccination program (e.g., on 10 April 2021) the difference was 2%; however, gender disparity in vaccines expanded to 24% by 6 May 2021 (Deccan Herald, 2021). At least three reasons contributed to this inequity. First, there exists gender discrimination in India which favours the male child, resulting in the allocation of resources towards men. This bias dictates access to basic facilities, including healthcare. Access to healthcare services is highly discriminatory towards women; a study conducted to analyse gender differences in access to hospitals in India indicated that approximately 63% of men were likely to make an annual visit to the hospital, compared to only 37% of women (BMJ, 2022). This suggests that nearly half of the total female population is 'missing' from receiving healthcare (BMJ, 2022).

Given that vaccination falls under healthcare services, it is unsurprising to find women missing; this is particularly life-altering in rural areas where physical access to vaccination centres and public healthcare infrastructure is located far away. In such scenarios, families are likely to dissuade, discourage, or even prohibit women from seeking out healthcare services.

Second, there exists a gendered digital divide which disempowered women from registering for vaccination on the Co-WIN application and receiving their doses. Although 67% of Indian women own mobile phones, only 30% of them had access to the internet in 2020; this likely prevented them from accessing information related to COVID-19 or the vaccination drive and registering themselves to receive the vaccine (Nikore & Uppadhayay, 2021).

Lastly, misinformation surrounding vaccine safety for women's bodies fuelled public concerns (BBC, 2021). To dispel such falsehoods, the government launched a campaign with posters, slogans, and chants to discredit misinformation (India Today, 2021). In addition, the government removed the rule for pre-registration on the Co-WIN application; prior to this, registration could only be done online. By changing the rule, the government permitted walk-in registration at vaccination sites, expanding the prospect of vaccine coverage. It also positively influenced the chances of women accessing vaccines, by addressing the gendered digital divide (Ravi, personal communication, 19 December 2022). It is likely that this measure had a positive effect on reducing gender disparity in access to COVID-19 vaccines.

# PART VI: SELF-RELIANCE, ACCOUNTABILITY, AND TRANSPARENCY

## 4.1. Self-reliance

At the start of the COVID-19 pandemic, the GoI recognised the need for self-reliance in a populous country like India. The GoI identified its inability to procure vaccines from abroad due to their steep prices and long waiting lines. In light of this, the GoI launched the Self-Reliant India Campaign (Atma Nirbhar Bharat Abhiyan) (Invest India, 2020). Launched on 12 May 2020, the program allocated economic stimulus and comprehensive packages worth USD265 billion (Rs. 20 lakh crores) to support India's fight against COVID-19.

Under this initiative, the GoI launched Mission COVID-19 Protection (Covid Suraksha), which strived to provide monetary support for indigenous vaccine development (Press Bureau of India, 2020). The GoI supported 5-6 vaccine candidates in their vaccine development processes. The program attempted to assist prospective vaccine candidates, from the preclinical stage to final licensing of the vaccine, in navigating regulatory authorities in India. By providing step-by-step assistance, the GoI strived to support vaccine candidates by creating an ecosystem that could allow for their growth. Additionally, the government wished to empower domestic vaccine candidates to embolden and quicken their attempts (Ministry of Science and Technology, 2020). Through such efforts, India was able to develop vaccine candidates like Covishield (Manufactured by the SII), Covaxin (developed and manufactured by Bharat Biotech), and ZyCoVd (developed by Cadilla), which contributed to ensuring India's supply of COVID-19 vaccines.

## 4.2. Accountability and transparency

The vaccination strategy attempted to improve transparency in vaccine procurement, distribution, and inoculation through the Co-WIN platform. At the logistical (back) and the consumer (front) ends, the platform strived to reduce information and vaccine leakages (Anonymous 7, personal communication, 5 December 2022). The platform also envisaged bringing transparency to vaccine usage by tracking the number of vaccine doses administered across geographical regions, which could aid in identifying areas with low immunisation or requiring better vaccine delivery infrastructure. Therefore, by systematically streamlining the vaccine supply, the GoI strived to improve transparency. However, other challenges embedded in the vaccination program raised questions about the degree of transparency exercised by the GoI. First, there was not a more detailed public discussion on the safety and efficacy of vaccines in India (Anonymous 7, personal communication, 5 December 2022). Lack of such discussions can lead to erosion of trust between the government and its citizens



in healthcare services and can have long-term effects. All health interventions are premised on trust, and any scope of mistrust in public healthcare services can fuel scepticism and hesitancy; evidence of this mistrust could be the degree of vaccine hesitancy, as high as 53%-95% in some states (Thiagarajan, 2021).

India's vaccination strategy and the three waves of COVID-19 infection surges created multiple crisis-like situations, such as halting India's vaccine export policy due to a domestic vaccine shortage, and vaccine scarcity driven by a hike in vaccine prices impacting the procurement policy of states. These crises pushed citizens to hold the decision-maker (i.e., the GoI) accountable for its actions. A key enabler for this accountability test was news media. Despite lockdowns nationwide, news media contributed to disseminating information about COVID-19 and vaccination. It also played its role as the fourth institution of democracy as it held the government accountable for challenges of vaccine wastage, vaccine distribution across states, and inequities (Kapoor & Ravi, 2021).

The judiciary also played a crucial role in ensuring government accountability. In the third phase of the vaccination program, as vaccination coverage was accelerated to include all citizens above the age of 18, there was a change in the process of procuring vaccines (MOHFW, 2021). This change allowed state governments to procure vaccines directly from the manufacturer, but at a higher cost than those from the GoI. These cost differences, accompanied by state governments' budgetary constraints, led to the issue being heard before India's Supreme Court. The court resolved the challenge by asking the GoI to alter its procurement policy to provide a fair deal for state governments. Subsequently, the GoI altered the vaccine procurement policy by volunteering to procure vaccines for states.

## 4.3. India's campaign for global equity

Since public health interventions, including lockdowns, had limited effects, the GoI, both independently and through partnerships, looked into development and equitable distribution of vaccines. A step in that direction was India's proposal to the World Trade Organisation (WTO) and South Africa to waive certain Trade-Related Aspects of Intellectual Property Rights (TRIPs) to aid in dealing with COVID-19. The TRIPs waiver aimed to enable generic drug manufacturers to override intellectual property rights on COVID-19-related vaccines, therapeutics, and other equipment to facilitate low-cost vaccine production and supply in low-income economies (The Economic Times, 2021). This waiver has received the support of 63 other co-sponsor countries during the pandemic. Despite ongoing discussions in the WTO assembly, there has been no final result (Business Standard, 2022).

# PART V: CONCLUSION AND WAY FORWARD

India dealt with three variants of the coronavirus, all cumulatively contributing to creating insurmountable pressure on its pre-existing public healthcare infrastructure. India had the herculean task of vaccinating its population of 1.4 billion people, so vaccine supply and coverage were the country's priorities. To address this, the Indian government, through its Covid Suraksha policy, supported 5-6 vaccine candidates in their development processes, resulting in domestically manufactured and developed vaccines, namely Covaxin and Covishield. These vaccine candidates emerged as key protection providers in India, ensuring accessibility and affordability. Thus, indigenous vaccine manufacturing and self-reliance aided in addressing India's challenge of scalability. India was able to administer over two billion vaccine doses within one year of launching its vaccination policy.

Meanwhile, the government also focused on information accessibility around its vaccination program. It formulated India's COVID-19 Vaccination Communication Policy, as part of which central and state governments jointly worked with religious, political, and local leaders and members of civil society to improve information accessibility surrounding vaccines. Technology and digital platforms such as the Co-WIN platform emerged as critical contributors in centralising the vaccination process and providing all information concerning COVID-19 vaccines. By linking local vaccine delivery infrastructure to vaccine manufacturers, the platform streamlined India's vaccine delivery process and reduced chances of vaccine leakage and loss. Importantly, technological platforms empowered Indian citizens to make decisions on the time, type, and nature of their vaccination experience and to subsequently possess a digital record, a novel achievement for a low-income country. Despite such measures, India's vaccination experience has not been equitable for all, as some states, such as Nagaland, Mizoram, Manipur, Jharkhand, and Punjab, have been slow in vaccinating eligible populations. Such slow uptakes resulted from high vaccine hesitancy and a lack of appropriate vaccine delivery infrastructure. Existing socio-structural norms such as gender discrimination, lack of digital access, and limited internet penetration have been other contributing factors.

In India's case, three measures that need to be adopted are the improvement of physical public health infrastructure, trust building between the state and its citizens, and the development of data that informs future vaccine allocation plans.

1. Improving public health infrastructure

   The pandemic, by revealing existing weaknesses in India's health infrastructure, has provided an opportunity to develop more appropriate resources. One problem has been the introduction of health interventions vertically, which individualise a healthcare program but tend to isolate it, resulting in more resources spent and less efficiency. Therefore, developing an integrated approach to dealing with respiratory and infectious diseases could allow for more effective use of time and resources (Ravichandran, 2022). Second, there exist disparities in healthcare infrastructure between states and between urban and rural areas. To improve such situations, local and national governments need to consistently make efforts to expand the range of primary healthcare centres and build first referral units that build capacity within healthcare clinics, enabling them to fight against future viruses.

2. Trust building between state and citizens

   India's high reportage of vaccine hesitancy has revealed a need to reflect on the causes driving this phenomenon. There have been instances reported where citizens were shamed for refusing to accept vaccines. While the rationale behind such actions of "building population immunity" is understandable, given COVID-19's high volatility, forced or even indirect health interventions are deplorable. Vaccine hesitancy results from the government's inability to provide sufficient information regarding health interventions; in India's case, the limited information shared on vaccine efficacy and the changing government guidelines regarding the timeline for receiving first and second doses fuelled fear regarding the vaccine.

   In such scenarios, appropriate and timely communication must occur between the state and its citizens. In the long term, there is a requirement for longer, constant communication between the two sets of stakeholders around medical interventions and healthcare in general.

3. Development of data for vaccine allocation plans

   The Co-WIN platform was built to streamline the vaccination process. It aimed to identify individuals for vaccination. However, no data repository was available to identify at-risk populations without self-registration on the Co-WIN portal. There is a dire need for India to couple its healthcare infrastructure with data on at-risk populations so that future vaccine allocation programmes can prioritise at-risk populations based on not just demographic and comorbidity factors but expand to include geographic and other risk factors. This would allow for efficient usage of limited resources like vaccines while maximising their impact.

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VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# INFORMATION, ACCOUNTABILITY, AND EQUITY IN NEPAL'S COVID-19 VACCINATION PROGRAMME

SAMIK KHAREL

VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# PART I: INTRODUCTION

## 1.1. State and trends of COVID-19 and vaccination

Although Nepal was one of the first countries to launch a COVID-19 vaccination drive, the campaign was plagued from the beginning with allegations of corruption, misplaced priorities, unequal treatment, and the continued marginalisation of vulnerable communities. This research explores access to vaccines among four marginalised communities — Chepang, Tharu, Muslims, and squatters (sukumbasi) — along with misinformation and disinformation on vaccine types, vaccine hesitancy, the rural vs urban vaccination divide, community roles in vaccination, and perceptions of the vaccines provided.

The first COVID-19 infection in Nepal was detected on 23 January 2020 (Sharma & Fletcher, 2020). A 32-year-old university student in Wuhan, China had returned to Nepal and tested positive for the coronavirus. By March 2020, when the World Health Organisation (WHO) declared COVID-19 a pandemic (Ganiger & Bijjal, 2022), cases were rapidly increasing in Nepal.

A year later, in January 2021, the Nepal government rolled out its COVID-19 vaccination programme (Poudel, 2021), ahead of many other nations. Nepal received one million doses of the Covishield vaccine (Oxford-AstraZeneca vaccine manufactured in India) from India (Slater, 2021), as part of the latter's 'vaccine diplomacy', which enabled Nepal to begin vaccinations on 27 January 2021 (Nepali Times, 2021). The campaign was guided by the WHO's National Deployment and Vaccination Plan (NDVP), which included regulatory guidance on vaccine access, vaccine selection, equitable distribution, procurement, financing, delivery mechanisms, prioritisation of population groups, vaccine safety surveillance, communication, and media responses.

By this time, the government had formed several task forces and committees across all levels to implement its COVID-19 vaccine allocation plan and its compliance with policies and regulations (ADB, 2021). Most prominent were the High-Level Coordination Committee for the Prevention and Control of COVID-19 and the COVID-19 Coordination and Management Committee (CCMC), chaired by the Deputy Prime Minister and including other cabinet-level ministers. In June 2020, following criticism about overlapping mandates and ineffectiveness, the High-Level Coordination Committee was phased out and the CCMC was allowed to take over as the sole federal-level committee overseeing the government's response to COVID-19 (Pradhan, 2020).

In line with the NDVP, the Nepal government vaccinated frontline healthcare workers first, including doctors, nurses, and health staff. However, contrary to WHO guidelines that stressed the prioritisation of other frontline workers and the elderly, the

government decided to provide journalists, diplomats, and development workers with vaccines next (Shahi, 2021). This was contrary to its Health Ministry's plan to prioritise staffers at international borders, the elderly, prisoners, and frontline workers (Shahi, 2021). It was only months later that the elderly — people over 65 years of age — began to receive vaccines.

Significant logistical hurdles hounded Nepal's early vaccination programme. Conspiracies surrounded the one million Covishield doses donated by India, with some believing that the vaccines were faulty and had been given to Nepal as a 'trial' (Shahi, 2021). When the one million doses ran out, Nepal had trouble acquiring more vaccines. Although it had purchased an additional two million doses of the Covishield vaccine from the Serum Institute of India in February 2021, India imposed restrictions on vaccine exports, citing the increase of cases in India (Shrestha, 2021). Thus, the elderly had to wait for over six months for their second doses due to the unavailability of the vaccine (Shrestha, 2021).

After it became clear that India was unable to provide Nepal with its pre-purchased vaccines, China stepped in and offered its vaccines to Nepal (Xinhua, 2021). Despite similar hesitancy among the populace regarding the effectiveness of the Chinese-made vaccines, the vaccination drive resumed when 800,000 doses of the Chinese-made Sinopharm Vero Cell (BBIBP-CorV) vaccine arrived in Nepal on 29 March 2021 (ANI, 2021). Nepal's then Health Minister called China's gesture to provide the vaccine part of a "health Silk Road" (Bhattarai, 2020), linking it with China's ambitious Belt and Road Initiative (BRI).

**Table 1: Vaccines approved for emergency use in Nepal**

| Vaccine name | Country of manufacture | Deployment |
|---|---|---|
| Oxford–AstraZeneca | India (as Covishield), Japan, Sweden | Yes |
| Janssen | USA | Yes |
| Sinopharm- BBIP (Vero Cell) | China | Yes |
| Pfizer-BioNtech | USA | Yes |
| Moderna | USA | Yes |
| Covaxin | India | No |
| Sputnik V | Russia | No |
| CoronaVac | China | No |

*Source: https://covid19.trackvaccines.org/country/nepal*

Nepal has so far approved eight vaccines, five of which have been deployed and three have not been used (see Table 1). As of 4 January 2023, Nepal had received 61,776,770 vaccine doses from various sources, and 53,506,207 had been administered, as shown in the Health Ministry overview in Table 2. The China COVID-19 Vaccine Tracker[1] shows that as of 22 December 2022, Nepal had received around 19 million doses of Chinese-made vaccines — 11.2 million purchased, and 7.8 million donated by China. These constitute around 31% of the total vaccines received by Nepal, making China its biggest vaccine supplier.

**Table 2: COVID-19 overview of Nepal (as of 4 January 2023)**

| | |
|---|---|
| Total population | 29,192,480 |
| Total positive cases | 1,001,012 |
| Recovered | 988,972 |
| Deaths | 12,019 |
| Targeted population: ages 12+ | 23,327,619 |
| First dose | 23,108,483 |
| Full dose | 22,324,933 |
| Total vaccine doses received | 61,776,770 |
| Total vaccine doses administered | 53,506,207 |
| Additional doses | 79,72,791 |

*Source: https://covid19.mohp.gov.np/*

As of January 2023, 22,327,169 people, or 76.5% of the total population, had been fully vaccinated (Poudel, 2023). To prepare for a possible resurgence of the virus, the government has also used its vaccine stocks to provide booster doses, for which 7,276,922 doses had been administered as of 4 January 2023.

## 1.2. Methodology

This research used focus group discussions (FGDs) and expert interviews for primary data collection, and desk research for secondary information.

### 1.2.1. Expert interviews

The authors interviewed four experts (see Table 3) who worked closely with health institutions, the government, media, and citizens during the height of the COVID-19 pandemic in Nepal.

[1] The China Vaccine Tracker shows all the procurements of vaccines from China by other countries. https://bridgebeijing.com/our-publications/our-publications-1/china-covid-19-vaccines-tracker/#China8217s_Vaccines_in_Asia

**Table 3: Interview list**

| Name | Position and affiliation | Interview method | Interview date |
|---|---|---|---|
| Dr. Sameer Kumar Adhikari | Spokesperson and Chief of Health Emergency Operation Centre, Ministry of Health and Population | Phone | 9 Jan 2023 |
| Dr. Sher Bahadur Pun | Chief of the Clinical Research Unit, Sukraraj Tropical Diseases Hospital | Phone | 21 Dec 2022 |
| Arjun Bhattarai | NGO Federation Nepal, People's Vaccine Alliance | Phone | 13 Dec 2022 |
| Local health journalist (seeking anonymity) | (not disclosed) | In person | 11 Dec 2022 |

### 1.2.2. Focus group discussions

The authors held FGDs with the aforementioned four marginalised communities, which were selected with geographic and social diversity in mind. We identified the marginalised communities in relation to communities of exclusion — ethnic minorities, religious minorities, and those neglected in terms of state privileges. The Chepang and Tharu are considered ethnic minorities, while Muslims constitute a religious minority in Nepal. Squatters, who often live in settlements along riverbanks, have generally been displaced from elsewhere in the country and live in very poor socio-economic conditions.

The FGDs were conducted face-to-face in the respective communities. The discussion with each group focused on the impacts of COVID-19, vaccine availability, access and choices, information disseminated about the vaccines, and knowledge of vaccine variants. The research also selected a convenience sample from the urban community in the capital, Kathmandu, to contrast with the selected marginalised groups in terms of vaccine equity, access, and information.

All FGDs were carried out between 14 November and 4 December 2022. A total of 42 participants (23 male, 19 female) were involved, with at least two women from each community. Thirty-two participants were from marginalised groups, while nine came from the urban convenience sample. These participants ranged from 17 to 86 years old. All of the interviews were audio recorded with consent.

#### 1.2.2.1. Profiles of marginalised groups

A brief profile of each group is given below.

**Chepang** are among the most marginalised indigenous groups in Nepal, with an estimated population of 70,000. They are primarily settled in Makwanpur, Chitwan, Dhading, and Gorkha districts. This community has always lived close to forests, in which they hunt, fish, and forage. Over 90% of the Chepang population lives below the poverty line (Lamgade, 2023), making this a vulnerable community, and they generally have little access to healthcare and education. Community members also lack basic healthcare facilities, depriving them of basic medicines and making the group one of the most vulnerable communities during the COVID-19 pandemic (Chepang, 2020).

**Muslims** are considered a religious minority, at 4.4% of Nepal's total population (MoFA, n.d.). The majority of Nepali Muslims live in the Terai (the southern plains of Nepal). The constitution of Nepal recognises Muslims as an "at risk" demographic group and has guaranteed them representation in government and public service. Nepali Muslims are among the poorest segments of the population, with comparatively little access to healthcare and education. The Nepal Government's 2015-2020 Health Sector Strategy points out that Muslims have the lowest rate of healthcare utilisation in Nepal (Ashworth & Roux, 2020).

**Tharu** are considered a marginalised ethnic group in Nepal. They are mostly settled in the Terai, where they were the earliest known settlers, and they are known for their natural resistance against malaria. They are also ardent believers in traditional medicine (Subedi, 2019). Tharu comprise around 6.6% of Nepal's population, making this a significant demographic. However, with low levels of education and high levels of poverty, they are vulnerable to exploitation and do not have proper access to healthcare (BASE, n.d.).

**Squatters** constitute an urban landless population with permanent shelter or land ownership (Karki, 2002). They are primarily found in urban centres, particularly in Kathmandu. As many as 34,096 families of this vulnerable population have been residing on the banks of the Bagmati river in Kathmandu for several years (TKP, 2022). Over the years, the government has made numerous attempts to evict them, as they reside in informal settlements with makeshift shelters in public areas.

## 1.3. FGD findings

**Chepang community**
Dhunibeshi Municipality, Dhading District
Ward:[2] 6, Sanistar
Households: 8
Population:[3] 45

| Name | Age | Sex | Occupation | Vaccine status | Vaccine type |
|---|---|---|---|---|---|
| Umesh Chepang | 30 | M | Farmer | Fully vaccinated | Unknown |
| Maiya Parja | 55 | F | Homemaker | Fully vaccinated | Vero Cell |

[2] A ward is the smallest unit of local government in Nepal. There are 6,743 wards in Nepal.

[3] This is the total population in that community, as provided by community leaders.

| | | | | | |
|---|---|---|---|---|---|
| Gobinda Parja | 20 | M | Driver | Fully vaccinated (with booster) | Janssen |
| Nirmaya Chepang | 27 | F | Homemaker | Fully vaccinated | Janssen |
| Sabina Chepang | 17 | F | Student | Fully vaccinated | Vero Cell |
| Kancha Chepang | 65 | M | Farmer | Not vaccinated | N/A |
| Radhika Chepang | 45 | F | Homemaker | Not vaccinated | N/A |
| Sani Kanchi Chepang | Not disclosed | F | Homemaker | Not vaccinated | N/A |
| Kaushila Chepang | Not disclosed | F | Homemaker | Fully vaccinated | Vero Cell |
| Chameli Chepang | 27 | F | Homemaker | Fully vaccinated | Vero Cell |

**Tharu community**
Rapti Municipality, Chitwan District
Ward: 8, Badrani
Households: 16
Population: 60

| Name | Age | Sex | Occupation | Vaccine status | Vaccine type |
|---|---|---|---|---|---|
| Rajendra Chaudhary | 43 | M | Farmer | Fully vaccinated | Vero Cell |
| Sanjay Chaudhary | 25 | M | Unemployed | Fully vaccinated | Vero Cell |
| Dhukani Devi Chaudhary | 62 | F | Farmer | Not vaccinated | N/A |
| Mina Chaudhary | 61 | F | Health assistant | Fully vaccinated | Vero Cell |
| Rajendra Chaudhary | 41 | M | Security | Fully vaccinated | Vero Cell |
| Chalai Mahato | 64 | M | Not disclosed | Not vaccinated | N/A |
| Sushma Chaudhary | 26 | F | Homemaker | Fully vaccinated | Vero Cell |
| Sitaramiya Chaudhary | 41 | F | Homemaker | Fully vaccinated | Vero Cell |



**Muslim community**
Devchuli Municipality, Nawalpur District
Ward: 16, Rajhar
Households: 75
Population: 200

| Name | Age | Sex | Occupation | Vaccine status | Vaccine type |
|---|---|---|---|---|---|
| Salima Miya | Not disclosed | F | Homemaker | Not vaccinated | N/A |
| Rasida Miya | Not disclosed | F | Homemaker | Fully vaccinated | Janssen |
| Ashan Ansari | 32 | M | Businessmen | Fully vaccinated | Janssen |
| Ranjit Shrestha | 21 | M | High School | Fully vaccinated | Janssen |
| Abdul Aziz | 30 | M | Teacher | Fully vaccinated | Vero Cell |
| Wakil Hamal | 33 | M | Priest | Fully vaccinated | Janssen |
| Nasiran Miya | 65 | F | Homemaker | Fully vaccinated | Vero Cell |

*Note: One participant was unvaccinated due to pregnancy.*

**Squatter community**
Kathmandu Metropolitan City, Kathmandu District
Ward: 11, Thapathali
Households: 136
Population: 900

| Name | Age | Sex | Occupation | Vaccine status | Vaccine type |
|---|---|---|---|---|---|
| Januka Pokharel | 58 | F | Household help | Fully vaccinated | Vero Cell |
| Gopal Poudel | 36 | M | Unemployed | Fully vaccinated (with booster) | Vero Cell |
| Hari Maya Jimba | 49 | F | Community Leader | Fully vaccinated | Vero Cell |
| Ganesh Pariyar | 50 | M | Unemployed | Fully vaccinated | Vero Cell |
| Balaram KC | Not disclosed | M | Migrant worker | Fully vaccinated (with booster) | Unknown |
| Aakam Pariyar | 27 | M | Unemployed | Fully vaccinated | Vero Cell |
| Lagan Lal Chaudhary | Not disclosed | M | Migrant worker | Fully vaccinated | Unknown |
| Krishna Bahadur Kami | 50 | M | Parking collector | Fully vaccinated | Vero Cell |

**Urban sample**
Kathmandu Valley (for convenience sampling)

| Name | Age | Sex | Occupation | Vaccine status | Vaccine type |
|---|---|---|---|---|---|
| Sudarsan Karki | 39 | M | Lecturer | Fully vaccinated | AstraZeneca |
| Prakrit Nepal | 36 | M | Administrator | Fully vaccinated | Moderna |
| Mohan Prasad Bajgain | 86 | M | Retired | Fully vaccinated (with booster) | Pfizer/ AstraZeneca |
| Ambika Ghimire | 75 | F | Homemaker | Fully vaccinated (with booster) | AstraZeneca |
| Ram Ojha | 35 | M | Journalist | Fully vaccinated (with booster) | AstraZeneca |
| Bhibhav Rai | 30 | M | Business owner | Fully vaccinated (with booster) | Vero Cell |
| Stuti Jha | 27 | F | NGO worker | Fully vaccinated (with booster) | Vero Cell |
| Durga Pokharel | 45 | F | Homemaker | Fully vaccinated | Vero Cell |
| Tara Khadga | 22 | F | Student | Fully vaccinated | Vero Cell |



# PART II: ON INFORMATION ACCESSIBILITY

The Nepal government's primary means of sharing COVID-19-related information has been through a daily update on a special Health Ministry web portal.[4] In addition to traditional media, the government also employed social media platforms like Facebook,[5] Twitter,[6] and YouTube, along with caller ringback tones on mobile phones to disseminate information. The Health Ministry's portal was primarily updated with figures on new cases and ongoing cases, as well as patient recovery data. There was also information on the vaccination rate, but little information on the vaccines provided, and no breakdown of how many people received which vaccines, along with details about the vaccines, doses, manufacturer, and expiry dates. Most of the missing information was eventually incorporated into the daily updates, but until then the public had to rely largely on news reports.

There were issues with the dissemination of information, especially at the beginning of the vaccination programme. Dr. Sher Bahadur Pun, Chief of the Clinical Research Unit at Sukraraj Tropical & Infectious Disease Hospital, admitted that at first, "vaccine distribution was mismanaged" and there was a "lack of effective communication from the government's side" (personal communication, 21 December 2022). Dr. Pun was referring to mismanagement when the vaccines were first rolled out, with mass crowding and people spending long hours in queues (Taylor, 2021).

Members of the four marginalised communities suggested that they were well informed about the vaccination campaign. They reported learning of vaccines from sources like radio, social media, word of mouth, and telecommunications services. However, responses differed slightly by community. None of the homes of the Chepang community members in the FGD had a television, so they got their news from the radio, mobile phones, or through word of mouth. Gobinda Parja, from the Chepang community, reported learning about the vaccine campaign from the caller ringback tone on his mobile phone.

The few who did not learn of the vaccines through the media said their curiosity about the long lines at hospitals and health posts led them to seek out the vaccine. This was most prevalent among the squatter community, as its members live in the heart of Kathmandu and are surrounded by numerous hospitals and vaccination centres. One squatter community member, Gopal Poudel, learned of the vaccination campaign by

[4] The official Ministry of Health website, covid19.mohp.gov.np, which shares COVID-19 information to the public on a daily basis.

[5] https://www.facebook.com/ccmcnepal/

[6] https://twitter.com/mohpnep

inquiring about the long queues at the Paropakar Maternity Hospital, a stone's throw away from the squatter settlement. However, most squatter community members in the FGD complained that the government had not informed them directly about vaccines, including where they were available.

Participatory research conducted by the NGO Federation of Nepal also concluded that marginalised communities had awareness about the vaccines and other routine immunisations, with primary information gained from health workers, community radios, female community health volunteers, civil society representatives, and local government bodies (NGO Federation of Nepal, 2022). This suggests that the government was fairly successful in its use of various media to encourage its citizens to get vaccinated.

Vaccine hesitancy was prevalent in Nepal. Our research also shows that marginalised communities were quite aware of vaccine availability but unsure about types. This is notable in light of debates concerning the efficacy of certain vaccines, and particularly those from China, including in the local newspaper Nepali Times (Awale & Dhakal, 2022). Health officials in Nepal were of the opinion that the government had failed to adequately explain the different vaccines and their efficacies to the public (Awale, 2021).

During the FGDs, participants expressed doubts about Chinese vaccines and showed preference for other vaccines. We spoke with 10 people from the Chepang community, none of whom knew the name of the vaccine they received — only whether it was administered in one or two doses (though we were able to verify based on their vaccination cards). Without clear information on the types of vaccines being provided and their efficacy, prejudices were thus able to take hold.

"We don't know which vaccine is better, but everyone says that the American vaccine is the best. Unfortunately, we didn't get it", said Sitaramiya Chaudhary, one of the Tharu participants, who received Vero Cell. Another participant, Sabina Chepang, from the Chepang community, also said that she would have preferred to take an American vaccine. "They were unavailable, so I had to take Vero Cell", she said. Most of the marginalised community members believed that there were two kinds of vaccines — Chinese and American. They were mostly hesitant to take the Chinese vaccine but ultimately took whatever was available. These responses are emblematic of the lack of information from the Nepal government about different vaccines.

Chinese vaccines were also widely mocked on social media.[7] For example, one user posted on Facebook, "I took the Chinese vaccines and now I feel they were fake as they had no effect". While most Nepalis were aware of the vaccine campaign and aware that they should get vaccinated, they did not know about the different types of vaccines. This resulted in communities assuming the efficacy of the different vaccines based on pre-existing prejudices.

[7] Searching "**चाइनिज भ्याक्सिन**" (Nepali for 'Chinese vaccine') on Facebook results in hundreds of posts questioning and mocking the Chinese vaccine.



Perceptions of the Chinese vaccine were largely due to a prevailing sentiment that Chinese-made products are inferior in quality and not as trustworthy as ones manufactured elsewhere. However, many FGD participants said they also preferred the Janssen vaccine because it was a single-shot vaccine and was thus logistically easier to receive. Dr. Sher Bahadur Pun said "people prioritised any vaccine other than the Chinese ones", and that people were mostly looking for "Pfizer or Covishield (AstraZeneca) and also the one dose of Janssen" (personal communication, 21 December 2022).

Some participants were better informed. For instance, Abdul Aziz, from the Muslim community, said that he waited and took the Janssen vaccine when it was available. "I took the single dose American vaccine because I didn't want to take a second dose. I was worried about the uncertainty of getting a second dose as people had to wait a long time for their second jabs."

Although the Nepal government strived to provide accurate information to the public through various media, there was misinformation. Ironically, some came from the then-current Prime Minister, who was prone to speaking off the cuff, even on serious matters. Though not speaking in his formal capacity, the Prime Minister saying such things led to misinformation circulating. For instance, he once remarked that COVID-19 was similar to a cold and that chewing guava leaves and drinking hot water with turmeric would act as a cure (Pradhan & Poudel, 2022). Body and Data, a civil society organisation that works in the field of digital rights, put together a list of common myths, like one that drinking cow urine or consuming turmeric and other spices would cure the coronavirus (Gauchan, 2020). Body and Data called these myths "deeply rooted with the feeling of 'ethnocentrism' that makes people proud of their heritage and culture at times of crisis".

Once the vaccines were deployed, more misinformation arose. A video purported to show people who had developed magnetic properties attracting metals after getting vaccinated (Sidhakura Online, 2021). There were also doubts about whether the Chinese Vero Cell vaccine had been approved by the WHO. According to Nepal Fact Check, another fact checking organisation, the Nepal government only deployed the vaccine after the WHO approved it for public use (Shrestha, 2021).

Among the marginalised groups, misinformation contributed to some vaccine hesitancy. Many members raised questions over the efficacy of the vaccine and whether it actually did what it was supposed to. Some expressed doubts over whether it could lead to impotence, weakness, or other diseases like dengue. A survey conducted on vaccine hesitancy by the Center for Research on Education Health and Social Science (CREHSS) concluded that 62% of respondents had heard negative information about the COVID-19 vaccine in Nepal (ADRA Nepal and CREHSS, 2021). Among them was FGD participant Chalai Mahato, of the Tharu community, who has existing health issues. He refused to take the vaccine because he was told it would make him frail. "I am a weak person and if I got vaccinated, I would get weaker. I saw that people who got vaccinated had fever. That is why I didn't take the vaccine", he said.

As these negative and baseless messages prevailed, the government saw an urgent need to control misinformation. The Epidemiology and Disease Control Division (EDCD) at the Health Ministry set up a call centre (WHO, 2021). The government and Nepal Police took strict measures to control misinformation, making arrests and taking legal action against those purportedly spreading fake information (Republica, 2020). As the vaccination campaign progressed and the pandemic subsided, the misinformation also slowly died down.



# PART III: ON ENSURING EQUITY

Initially, Nepal faced difficulties procuring vaccines from countries manufacturing them in the West. India and China, however, managed to supply much of the developing world, including Nepal, with their own vaccines. Once the vaccine supply became steady, with Nepal securing consignments from various donor countries and alliances like COVAX, Nepal authorities managed to deploy the vaccines, but there were significant equity issues.

Early in the vaccination drive, the government's decision to vaccinate journalists, diplomats, and aid workers ahead of the elderly, those with comorbidities, and other frontline workers was heavily criticised (Rai & Sharma, 2021). Many believed that the government was using the vaccines to curry favour with donor agencies and journalists by offering them the jab first.

Throughout Nepal's vaccination campaign, there were numerous hiccups with vaccine access, some of which can be attributed to the Nepal government, while others were beyond its control. For instance, the government was left without enough vaccines to provide second doses after India, citing a domestic shortage, was unable to export the vaccines for which Nepal had already paid.

From the beginning, Nepal had little control over the type of vaccines that it could deploy as its procurement depended on donors and neighbouring countries (Poudel, 2021). Since vaccines were in short supply, Nepal had no choice but to accept whatever vaccine was available. Nepali citizens, in turn, had little autonomy in deciding which vaccine to get (Hyolmo, 2021). Those who might have preferred an RNA vaccine as opposed to an inactivated virus vaccine simply had to accept whatever vaccine the government was providing according to its priority (MoHP, 2021).

## 3.1. The rural-urban divide

Although Nepal's urban population is just around 20% of the country's total (World Bank, 2021), city dwellers had faster and easier access to vaccines, as the drive began in the cities, with a large focus on Kathmandu. Rural residents either had to go to cities to get vaccinated, which was often not possible due to COVID-19-related travel restrictions, or wait their turn in their villages, which took months. Compared to the urban convenience sample, participants from each of the four marginalised groups got their vaccines much later. This was not just due to their marginalised position in Nepali society, but also due to the fact that they live primarily in rural areas. Comparing the vaccination dates, the marginalised communities did not begin to receive their vaccines until at least five months after the urban community in Kathmandu did. This discrepancy only increased the already wide gap between rural and urban populations in terms of access to services.

Even the COVID-19 Crisis Management Ordinance (CMO), a legal instrument passed by the President to deal with the pandemic, was unable to close these gaps. Introduced in May 2021, the ordinance entitled the government to take charge of any resource, even private hospitals and entities, in order to curb the pandemic (TKP, 2021). However, an opinion from OpinioJuris claims that the law failed to "adequately identify and prioritize marginalized and/or high-risk groups [...] in accessing the health goods and services" (Shrestha, 2021). Health Ministry Spokesperson Dr. Sameer Kumar Adhikari claims the government decided to "focus on urban areas" in consideration of their population destiny and potential for spread of the virus (personal communication, 9 January 2023). This was clearly seen when comparing the urban convenience sample with the marginalised communities.

Marginalised communities like the Chepang, Tharu, and Muslims live on the outskirts of settlements and away from villages and cities, so even among rural residents they had the most difficulty accessing vaccines. For instance, it took Chepang community members four hours to walk to the nearest health post giving out vaccinations, said Umesh Chepang, one of the participants in the research. The Muslim and Tharu communities had comparatively better access to vaccination centres, perhaps because they live in the plains; Chepang community members live in the hills, where road access is more sparse. Meanwhile, the squatter community, which lives in urban settings, had better access to vaccination centres but faced long hours in queues alongside the rest of the urban population, according to the squatter participants interviewed.

Despite these challenges, results show that a high percentage of the four marginalised communities were vaccinated. Data obtained from the Dhading District Administration Office shows the district had 25,000 Chepang community members in the district, of whom 70% had received a full dose of a COVID-19 vaccine, as of 14 November 2022. Krishna Prasad Lamsal, the Chief District Officer of Dhading, who is also chairperson of the district's Covid Management Committee, said that the Chepang community was "initially reluctant to get vaccinated but eventually came around" (K.P Lamsal, personal communication, 14 November 2022). Mina Chaudhari, a local female community health worker, said that around 80% of the Tharu community were fully vaccinated with the Vero Cell vaccine. At the same time, Min Kumar Rana Magar, chairperson of Association of Oppressed Squatters, said over 90% of families in the squatter community had received the Vero Cell vaccine. FGD participants from the Muslim community said that 85% of their community was fully vaccinated, while the remaining 15% consisted of pregnant women and elderly people who did not get vaccinated due to fear of side effects. While these marginalised communities had a substantial vaccination percentage, results show that they were left behind compared to the urban community (used for convenience sampling), which was fully vaccinated.

The rural-urban divide was further widened by the digital divide. While the Nepal government put information on its website and its social media channels, many rural residents without Internet access were left out (Kharel, 2021). Although mobile phones and phone service are generally accessible, cellular data access is still spotty in rural areas. No FGD members from the Chepang community had access to the Internet, while a handful of young Tharu and Muslim community members had minimal access. Only the urban convenience sample participants had broadband Internet access.

A few instances of vaccine hesitancy, pregnancy, and other existing health conditions were also witnessed in the four communities. The vaccinated population in the Muslim and Tharu communities had all received the Vero Cell vaccine, and a majority of the squatter community had as well. The Chepang population had received a mixture of Janssen and Vero Cell. Compared to these, the urban sample seems to have gotten access to vaccines from a more diverse selection of manufacturers, including AstraZeneca, Pfizer, and Moderna. Although queues were long, most urban residents were able to get vaccinated early in the campaign. Information and vaccine infrastructure were also more focused on urban areas, with more vaccine centres, more manpower, and more vaccine choices. Kathmandu Valley alone had 32 vaccination centres (Nepalnews, 2021), which included hospitals, schools and ward offices. This illustrated the urban-rural divide in Nepal's vaccine administration (Poudel, 2021).

### 3.2. Efforts to increase equity

In marginalised communities like the Chepang and Muslims, communal and religious leaders played a crucial role in getting their communities vaccinated. A community leader from the Muslim community, Wakil, personally took 80 students from a madrasa (a Muslim school) to the local vaccination centre. In the Chepang community, a local representative took a handful of people, including some of the FGD participants, to another village to get vaccinated before their village's turn came. UNICEF told the story of Lalita Gupta from Saptari District, a healthcare worker who, after receiving her shots, started informing her community about vaccine effectiveness and encouraging everyone to get inoculated (UNICEF Nepal, 2021). Similar efforts took place elsewhere in marginalised communities.

Civil society efforts to ensure vaccine equity that were specifically focused on marginalised populations were rare. In the early stages of the vaccination drive, some civil society organisations came together and appealed to the government for transparency and prioritisation of the vaccines for marginalised communities (TKP, 2020). Some even urged China to provide additional doses of vaccines, calling the northern neighbour "not only a neighbor but a good friend to Nepal, a relationship attested particularly in times of crisis" (Republica, 2021). Despite the widespread scepticism of Chinese-made vaccines, civil society still considered these vaccines viable, especially at a time when no others were forthcoming.

Although there were a few notable gestures from civil society, they were not substantial. The NGO Federation of Nepal has stated that civil society could have played a major role in supporting local governments and empowering marginalised communities to access COVID-19 vaccines (NGO Federation Nepal, 2022).

Even though most marginalised communities eventually received vaccines, it took the government a long time to administer them. An editorial in The Kathmandu Post wrote that the government lacked proper awareness and had "forgotten" the marginalised population and failed to vaccinate them (TKP, 2021). It reported that the Musahars, one of the poorest and most marginalised communities in Nepal, were largely unaware of the vaccination drive. Only 20% of the community's 119 households were vaccinated as of February 2022 (Puri, 2021), a year after the national vaccination drive started.



# PART IV: ON ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

Nepal relied largely on the goodwill of donors and multinational organisations. Because Nepal does not produce any vaccines on its own and has very little sway in terms of global geopolitics, the country was forced to accept whatever was given. Self-reliance also remains unlikely for Nepal, which is heavily dependent on its two neighbours, India and China, which were both crucial vaccine partners for Nepal. India provided at least 11 vaccine consignments, and China over 14 consignments, as recorded from various sources. Together, the two neighbours contributed over 50% of all vaccines acquired by Nepal (see Table 4).

The government was not transparent about disseminating information on procurement and spending on vaccines. Most of the information came from local media. National dailies like Kantipur, The Kathmandu Post, Nagarik, Swasthakhabar, and Naya Patrika, together with online media like OnlineKhabar and Setopati, broke stories about corruption in procurement and acted as watchdogs (Pradhan, 2020).

For instance, the media exposed the wrongdoing of Omni Group, an influential business house, in the procurement of medical equipment like non contact thermometers, N95 masks, testing kits, and Personal Protective Equipment (PPE) essential during the COVID-19 pandemic. The Department of Health Services, mandated to carry out procurement, was bypassed as the high-level CCMC took charge of selecting a bidder. The national media reported the irregularities in the procurement process, including the fact that Omni's substandard products cost three times the market price (Sharma, 2020).

There was little transparency regarding the purchase of certain vaccines from manufacturing countries. For instance, Nepal signed a non-disclosure agreement with China regarding the price at which Nepal purchased 10 million doses of the Sinopharm vaccine (TKP, 2021). China was selling the vaccine to Nepal at USD10 per dose, a low price that it did not want to disclose publicly, according to media reports (Bose, 2021). At the same time, the Nepal government appeared uninterested in disseminating information about the procurement due to issues with price, diplomatic hurdles, and internal criticism. There were also issues regarding vaccine procurement from India. As mentioned earlier, although Nepal had already paid for two million doses of the Covishield vaccine manufactured by the Serum Institute of India, India refused to dispatch its remaining one million doses, citing rising domestic demand (Neupane, 2021). While the government had paid for two million vaccines at USD4 per dose, the local agent for the manufacturing company demanded a 10% commission and lobbied for Nepal to pay USD6 per dose (Budhathoki & Tripathi, 2021). The procurement was halted after the details of the local agent's corrupt lobbying emerged in the media (Subedi, 2021).

Arjun Bhattarai, of NGO Federation of Nepal, said that vaccine procurement was not a transparent process as there was no clarity on which consignments were received as loans and which ones as grants (personal communication, 13 December 2022).

The government was active in procuring vaccines using its diplomatic channels, and the Ministry of Foreign Affairs sent diplomatic cables to major vaccine producing countries — India, China, Russia, the UK, and the US. The Nepal Embassy in India was active in the procurement process, meeting senior government officials as well as vaccine manufacturers like the Serum Institute of India and Bharat Biotech. However, in the case of China, the Nepal embassy in Beijing was completely sidelined from the procurement processes by the Nepal government, raising questions about the transparency of the government's procurements. "The Nepali Embassy in Beijing was neither engaged in any effort to procure vaccines from China nor was it asked to connect with the Chinese vaccine producers" reads a report by the think tank Institute for Integrated Development Studies (IIDS, 2021). The Nepal government had bypassed its own diplomatic mechanisms in order to deal with its northern neighbour.

Citing the Right to Information Act, various international organisations like the International Commission of Jurists (ICJ) demanded access to information held by public bodies regarding the COVID-19 vaccine procurement process, including contracts between the government and pharmaceutical companies. ICJ called the Nepal government's response to COVID-19 a failure, asking it to "widely publish a COVID-19 vaccine acquisition and distribution plan, detailing concrete measures to ensure non-discriminatory access to COVID-19 vaccines to all inhabitants of Nepal" (ICJ, 2021).

However, the government ignored recommendations made by international organisations, failing to make the procurement process more transparent. A health journalist opined that the "government had hidden the exact breakdown of the vaccine consignments and also the vaccine expiry data" (Anonymous, personal communication, 22 December 2022). With no official data on vaccine procurement provided by the government, civil society and NGOs consolidated their data from various sources like diplomatic releases and newspapers to make the numbers more transparent, accessible, and understandable. Vaccine figures gathered from various sources show the recorded number of vaccine consignments on various dates together with their purchase and grant status (see Table 4). Among them are many countries which opted to grant Nepal vaccine doses, together with COVAX and other entities like the Red Cross. Of Nepal's total procurement of 61,776,770 doses, this table only accounts for 50,182,000 vaccine doses; the sources and quantities cannot be identified for another 11,594,770 doses.

**Table 4: Vaccine procurement details**

| SN | Vaccine name | Quantity | From | Type | Date | Remarks |
|---|---|---|---|---|---|---|
| 1 | Covishield | 1,000,000 | India | Grant | 21 Jan 2021 | |
| 2 | Covishield | 1,000,000 | India | Bought | 22 Feb 2021 | |
| 3 | Covishield | 348,000 | COVAX | Grant | 07 Mar 2021 | |
| 4 | Covishield | 100,000 | Indian Army | Grant | 28 Mar 2021 | Nepal Army |
| 5 | Vero Cell | 800,000 | China | Grant | 29 Mar 2021 | |
| 6 | Vero Cell | 1,000,000 | China | Grant | 01 Jun 2021 | |
| 7 | Vero Cell | 4,000,000 | China | Bought | 09 Jun 2021 to 30 Jun 2021 | |
| 8 | J&J | 1,538,850 | US-COVAX | Grant | 12 Jul 2021 | |
| 9 | AstraZeneca | 230,000 | Bhutan | Grant | 07 Aug 2021 | |
| 10 | AstraZeneca | 1,614,740 | Japan-COVAX | Grant | 07 Aug 2021 to 23 Aug 2021 | |
| 11 | Vero Cell | 1,600,000 | China | Bought | 18 Aug 2021; 19 Aug 2021 | |
| 12 | AstraZeneca | 131,120 | UK | Grant | 26 Aug 2021 | |
| 13 | Vero Cell | 4,400,000 | China | Bought | 17 Sep 2021 | |
| 14 | Vero Cell | 100,000 | China-Red Cross | Grant | 24 Sep 2021 | Red Cross |
| 15 | Covishield | 1,000,000 | India | Bought | 09 Sep 2021 | |
| 16 | Pfizer | 100,620 | COVAX | Grant | 25 Oct 2021 | |
| 17 | Vero Cell | 1,020,000 | COVAX | Cost sharing | 27 Oct 2021 | |
| 18 | AstraZeneca | 201,600 | Maldives | Grant | 31 Oct 2021 | |
| 19 | Vero Cell | 1,600,000 | China | Grant | 03 Nov 2021 | |
| 20 | Vero Cell | 300,000 | China-PLA | Grant | 05 Nov 2021 | Nepal Army |
| 21 | AstraZeneca | 300,048 | COVAX | Grant | 10 Nov 2021 | |
| 22 | AstraZeneca | 100,044 | Switzerland-COVAX | Grant | 10 Nov 2021 | |
| 23 | Vero Cell | 1,058,892 | COVAX | Cost sharing | 11 Nov 2021 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 24 | Vero Cell | 411,768 | COVAX | Cost sharing | 15 Nov 2021 | |
| 25 | Vero Cell | 1,058,940 | COVAX | Cost sharing | 15 Nov 2021 | |
| 26 | AstraZeneca | 368,100 | Canada | Grant | 16 Nov 2021 | |
| 27 | Covishield | 725,500 | COVAX | Grant | 29 Nov 2021 | |
| 28 | Covishield | 972,000 | COVAX | Grant | 01 Dec 2021 | |
| 29 | Moderna | 188,400 | COVAX | Cost sharing | 03 Dec 2021 | |
| 30 | Covishield | 600,000 | COVAX | Cost sharing | 08 Dec 2021 | |
| 31 | Moderna | 1,497,200 | COVAX | Cost sharing | 09 Dec 2021 | |
| 32 | Moderna | 1,965,600 | Germany-COVAX | Grant | 12 Dec 2021 | |
| 33 | Covishield | 1,871,000 | COVAX | Cost sharing | 15 Dec 2021 | |
| 34 | J&J | 2,176,650 | Germany-COVAX | Grant | 16 Dec 2021 | |
| 35 | Vero Cell | 1,201,887 | COVAX | Cost sharing | 20 Dec 2021 | |
| 36 | Covishield | 1,870,500 | COVAX | Cost sharing | 20 Dec 2021 | |
| 37 | Pfizer | 664,560 | US-COVAX | Grant | 24 Dec 2021 | |
| 38 | Vero Cell | 1,184,913 | COVAX | Cost sharing | 11 Jan 2022 | |
| 39 | Moderna | 2,339,200 | COVAX | Cost sharing | 31 Jan 2022; 01 Feb 2022 | |
| 40 | Moderna | 1,660,800 | COVAX | Cost sharing | 25 Jan 2022 | |
| 41 | AstraZeneca | 685,000 | France | Grant | 26 Jan 2022 | |
| 42 | AstraZeneca | 663,000 | Italy | Grant | 26 Jan 2022 | |
| 43 | AstraZeneca | 862,080 | COVAX | Grant | 07 Feb 2022 | |
| 44 | Covaxin | 100,000 | Indian Army | Grant | 24 Feb 2022 | |
| 45 | Pfizer | 2,299,200 | COVAX | Grant | 03 Jul 2022 | |
| | **Total** | **50,182,000** | **Total Chinese Vaccine: 19,336,400** | **Other Vaccines: 30,845,600** | | |

*Note: compiled from the Nepal Institute of Policy Research and various newspaper sources (as of July 2022), https://iids.org.np/images/publications/ac801fe80c6b6c823ee05edd14eba148.pdf*



Once the pandemic subsided, Nepal, perhaps learning from the problems it had faced, announced it would facilitate the setting up of vaccine manufacturing plants, for which several local pharmaceutical companies expressed interest (Shrestha, 2021). The government, through the national gazette (DoIND, 2021), expressed that incentives and subsidies would be given to interested parties with tax and duty exemptions on the import of machinery and other essentials (Shrestha, 2021).[8]

As the vaccine consignments kept coming and people who wanted to get vaccines decreased, Nepal stocked up on millions of vaccines (Onlinekhabar, 2022). Doses worth millions, however, have expired, as reported by Naya Patrika, a daily newspaper (Adhikari, 2022). Researchers say the expiry date of an unopened multidose vial of the COVID-19 vaccine is six months from the manufacture date (Sah et al., 2021).

The government is currently holding vaccines in case of another COVID-19 wave and the booster doses it would require. Table 5 shows the seven provinces in Nepal, together with three other cold chain stores currently stocking various vaccines (Verocell, Pfizer, and Janssen), and syringes and safety boxes to store and transport them. As of 11 December 2022, there was a stock of 4,768,916 vaccine doses, with Vero Cell stocks constituting roughly 90% of them (4,280,996 doses). This data was provided to the researcher by the Health Ministry after numerous requests. Still, the vaccine expiry dates were not disclosed. Three weeks after this data was obtained, on 2 January 2023, the government declared that it had no vaccines in stock (Poudel, 2023). This raises numerous questions regarding the transparency and accountability of the government concerning these vaccines.

[8] Incentives included a procurement guarantee for 60% of the total vaccine demand, assuring credit at subsidised interest, and tax and duty exemptions on the import of machinery.

**Table 5: Nepal government's vaccine stocks in five provinces**

| Nepal's vaccine stock status of COVID-19 vaccines (as of 11 December YEAR) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S.N | Cold chain store | Vero cell | Janssen (J& ) | Pfizer Tris (Grey Cap) | Pfizer Pediatric | Total vaccine | AD syringe 0.5 ml | AD syringe 0.3ml | AD syringe 0.2ml | Syringes 1ml | Safety box |
| 1 | Koshi Province | 0 | 0 | 0 | 0 | 0 | 779,000 | 0 | 68,500 | 7,900 | 8,275 |
| 2 | Madhesh Province | 0 | 0 | 7020 | 0 | 7,020 | 417,800 | 0 | 110,000 | 106,800 | 17,475 |
| 3 | Hetauda | 58,000 | - | - | 72,000 | 130,000 | 1,866,200 | 0 | 24,000 | 252,100 | 29,657 |
| 4 | Bagmati Province | 117,484 | 0 | 0 | 405600 | 523,084 | 1,066,818 | 181,928 | 8,000 | 0 | 10,628 |
| 5 | Gandaki Province | 245 | 0 | 0 | 3300 | 3,545 | 930,000 | 180,000 | 170,600 | 0 | 7,100 |
| 6 | Lumbini Province | 65,971 | - | - | - | 65,971 | 4,543,800 | 48,000 | 99,700 | 61,200 | 23,375 |
| 7 | Karnali Province | 32,730 | 0 | 0 | 0 | 32,730 | 3,142,000 | 0 | 79,000 | 0 | 14,175 |
| 8 | Sudur Pashchim Province | 6,566 | 0 | 0 | - | 6,566 | 1,920,800 | 38,000 | - | 26,400 | 13,100 |
| 9 | Central Store, Pathlaiya | 0 | 0 | 0 | 0 | 0 | 52,969,300 | 0 | 450,000 | 0 | 462,325 |
| 10 | Central Store, Teku | 4,000,000 | 0 | 0 | 0 | 4,000,000 | 0 | 1,547,200 | 0 | 0 | - |

*Note: data provided by by Provincial Health Logistic Management Center (PHLMC) of the Health Ministry*



# PART V: CONCLUSION

While Nepal's vaccination campaign has largely been a success, numerous existing fault lines within Nepali society were exposed. As a non-manufacturing country, Nepal was forced to depend on the generosity of foreign countries and multinational organisations for its vaccine supply, which meant vaccine choice for citizens was limited. Corruption and lack of transparency plagued the procurement process, even as social inequalities forced marginalised communities to wait longer for jabs than others at the top of the socio-economic ladder.

Marginalised communities, mainly living outside urban areas, received their doses months after the urban community, exposing the existing rural-urban divide. Although the government was successful in disseminating information through various channels, marginalised communities without access to the Internet or other mass media were left out and had to rely on word of mouth. There were also allegations in the media that the government had failed to prioritise some marginalised communities (though a majority of the research subjects eventually got vaccinated).

With a majority of the population now vaccinated, it might appear the vaccination campaign has been a success, but there are improvements that the government can make when it comes to transparency, accountability, and service delivery, especially in rural areas. The following recommendations can help ensure the government addresses these issues:

1. The government should be transparent about vaccine procurement and provide updated data for public use. It should define whether vaccines were purchased, given as aid, or given as a loan. The government should publish all details concerning COVID-19 vaccine consignments and sources.

2. The government should keep track of the supply and demand of the vaccines and make this information easily accessible to the public. In Nepal, large stocks of vaccines have expired as the government failed to properly procure and administer them.

3. Emphasis must be placed on serving marginalised communities. These communities must be given due priority in ensuring that vaccination is easily accessible to them.

4. The process of administering vaccines should also be made simpler by placing vulnerable populations in focus. Vaccine centres should be accessible and in proximity to rural communities. Bureaucratic hassles of filling forms and queuing for hours should be better managed.

5. The capacity of local governments to receive, store, and deploy vaccines should be strengthened. The preparedness of local government units can help close the urban-rural divide.

6. Regional cooperation is necessary in vaccine diplomacy. It does not matter whether vaccines are acquired from China, India, or the rest of the world; the strategy should be to get the vaccines at the cheapest possible prices. In this regard, Nepal needs to be much more transparent about its dealings with foreign governments.

7. The government should partner with the media to combat misinformation and disseminate accurate information. Factual information on vaccines is crucial to sidelining vaccine hesitancy. Languages, cultural contexts, and societal nuances should be considered while encouraging people to get vaccinated.



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## ABOUT THE RESEARCHER

Samik Kharel is an independent researcher, journalist, and academic based in Kathmandu. Kharel has been writing and researching on various social issues for over a decade. He mainly researches on digital technology and its implications in society. As a journalist, he regularly contributes to various national and international media, including Al Jazeera, Deutsche Presse-Agentur (dpa), The Diplomat, The Kathmandu Post, and The Record, among others. Kharel also teaches Critical Thinking and Philosophy.

VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# FAILURE TO LAUNCH:

## Kazakhstan's Stalled COVID-19 Vaccine Program

VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE

# PART I: INTRODUCTION

### 1.1. State and trends of COVID-19 and vaccination in Kazakhstan

Sparke and Levy (2022) define vaccine diplomacy as "the diverse bilateral deliveries of vaccines organized by the geopolitical considerations of countries strategically seeking various global and regional advantages in international relations". In this context, Kazakhstan's vaccine response, being both geographically and economically close to both Russia and China, was dominated by the various Russian and Chinese vaccines and the attached state concerns. There were attempts by Kazakhstan's government to introduce Western countries' vaccines. However, this failed to prove a viable alternative.

**Figure 1: COVID-19 statistics in Kazakhstan**


*Source: Johns Hopkins University CSSE COVID-19 Data*

The Kazakhstan President's decree dated 15 March 2020 (Adilet, 2020) imposed emergency conditions from 16 March to 30 April 2020, which was subsequently extended and ended on 11 May 2020. Information from the Johns Hopkins Coronavirus Resource Center website reflects that as of 20 February 2023, Kazakhstan had recorded 1,497,449 confirmed cases and 19,068 deaths from COVID-19 (Kazakhstan - COVID-19 Overview - Johns Hopkins, n.d.).

There were four waves of COVID-19 infections in Kazakhstan between July 2020 and July 2022. The government's data for infections is dubious, due to both its own limited data collection abilities and its desire to obfuscate and downplay the true numbers. However, the comparative severity of daily cases for each wave appears to track the pattern of the true numbers (i.e., the trend is correct but the volume is

underreported), and extrapolating from the trend could conceivably yield numbers closer to reality.

**Table 1: Waves of new cases of COVID-19 in Kazakhstan**

| Waves | Time period | Maximum cases registered per day |
|---|---|---|
| Wave 1 | July-August 2020 | 18,757 |
| Wave 2 | July-August 2021 | 16,122 (with extreme case of 66,121 on 23 July 2021) |
| Wave 3 | January 2022 | 16,441 |
| Wave 4 | July 2022 | 6,323 |

*Note: Author's own estimation based on Kazakhstan: WHO Coronavirus Disease (COVID-19) Dashboard With Vaccination Data. (n.d.).https://covid19.who.int/region/euro/country/kz/*

There were four waves of infection in Kazakhstan. While the highest daily average was registered in Wave 1, it was in Waves 2 and 3 where the virus peaked and then subsided. WHO data shows that Kazakhstan's peak numbers of daily new cases in Waves 2 and 3 were reached on 20 July 2021 and on 15 January 2022, with more than 15,000 cases on the peak day of the second wave (Table 1). The 66,121 daily case high in Wave 2 was a piece of government statistical manipulation. The government had been tabulating COVID-19 cases under a separate ledger, for 'pneumonia', and on 23 July it released some of these statistics back into the main pool as a response to public pressure (Kenderdine 2020).

The deterioration of the situation was directly related to government policy. The lockdown was lifted in July 2021, and the Omicron strain spread rapidly amid increased local mobility, holiday travel, and insufficient adherence to preventive measures in January 2022 (Tonkopei, 2022).

The Ministry of Health (MOH) has officially registered eight vaccines for rollout (Medical and Pharmaceutical Control Committee, 2021), including the locally produced QazVac, three Russian-made, two Chinese-made, and one vaccine each from the UAE and Belgium. Being land-locked and situated between Russia and China, Kazakhstan's combination of common historical ties with Russia as a post-Soviet country and newfound economic dependence on China affected the diplomacy and policy direction of its vaccine rollout, where the most widely spread vaccines were those produced in Russia and China.

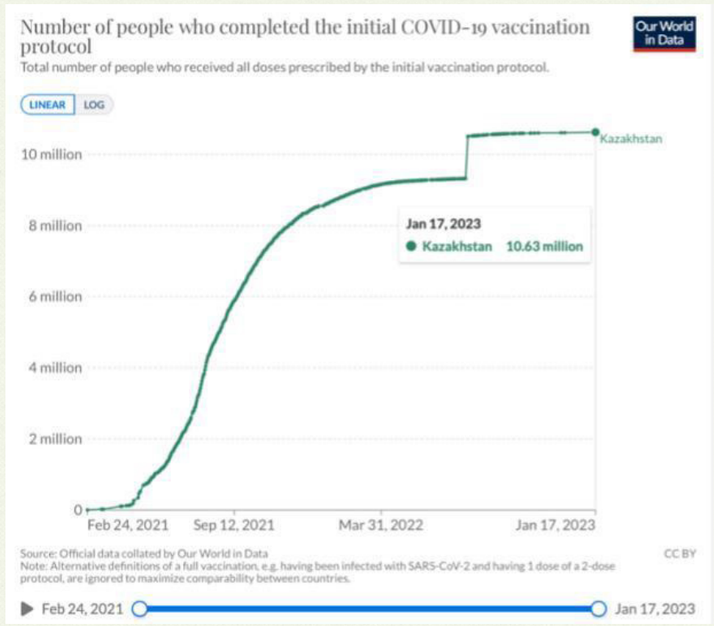
**Table 2: Rollout of vaccines in Kazakhstan**

| Introduced | Vaccine | Manufacturer | Description |
|---|---|---|---|
| 5 Jan 2021 | QazVac (QazCovid) | Kazakhstan | • Inactivated vaccine against COVID-19 produced by the Republican State Enterprise<br>• Not approved by the WHO |
| 15 Feb 2021 | Gam-COVID-Vac (Sputnik V) | Russia | • Developed by the Gamaleya Research Institute of Epidemiology and Microbiology in Russia<br>• Initially released on 11 August 2020<br>• Review of the vaccine was delayed by the WHO due to insufficient data<br>• Rollout stopped due to sanctions |
| 15 Apr 2021 | Hayat Vax | UAE | • Created by Sinopharm<br>• Not approved by the WHO |
| 19 May 2021 | CoronaVac | China | • Obtained certificate of confirmation of the production site<br>• WHO-validated |
| 12 Jul 2021 | Sputnik Light | Russia | • Vector vaccine produced in the Russian Federation<br>• Not approved by the WHO<br>• Review delayed by the WHO due to insufficient data<br>• Rollout stopped due to sanctions |
| 21 Jul 2021 | Vero Cell | China | • Created by Sinopharm<br>• Included in the WHO list of COVID-19 Vaccines for Emergency Use |
| 3 Sep 2021 | Comiranity | Belgium | • Produced by Pfizer |
| 19 Feb 2022 | Sputnik M (Gam-COVID-Vac-M) | Russia | • Intended for use by people 12-17 years old<br>• Differs from Sputnik V in terms of concentration of adenovirus particles reduced five times (adolescent immunity less stressed compared to adults)<br>• Not approved by the WHO<br>• Review delayed by the WHO due to insufficient data<br>• Rollout stopped due to sanctions |

Despite eight vaccines being registered for use in Kazakhstan, only five were available according to the national web portal — Sputnik V, QazVac, CoronaVac, Sinopharm, and Pfizer.[1] Pfizer, while available, was not initially purchased in sufficient quantities to allow widespread adoption and was available only initially for children, pregnant women, and breastfeeding mothers. It was made available to the public only at the end of 2021.

The number of people who completed the initial two-dose vaccination protocol was 10.63 million as of 17 January 2023 (data accessed 24 February 2023) (see Figure 2). The MOH initiated a multi-stage vaccination program beginning on 1 February 2021, with a target of vaccinating six million people by the end of 2021 (Press Service of the Prime Minister of the Republic of Kazakhstan, 2021). The government planned to carry out the vaccination in stages for various population groups, and it planned its procurement to match the needs of its targets.

**Figure 2: Number of people reported to have completed the initial COVID-19 vaccination protocol**



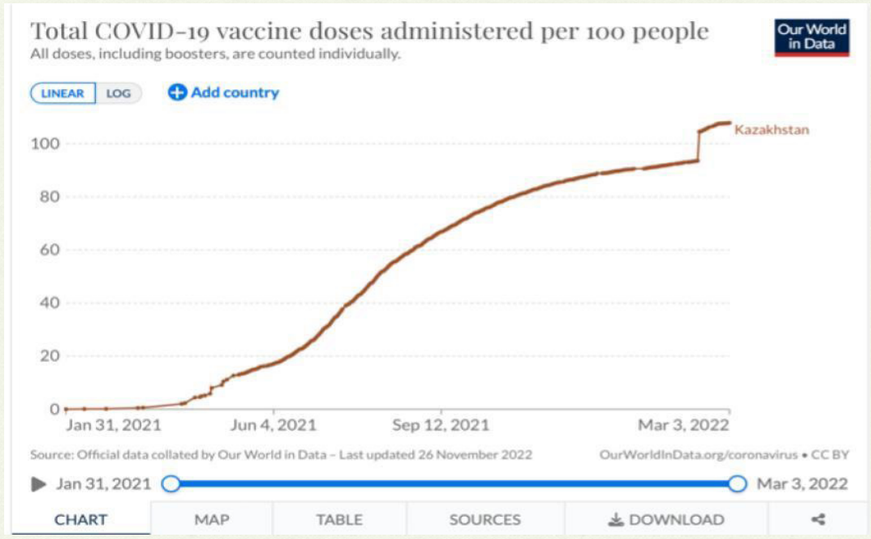

*Note. Official data collated by Our World in Data*

[1] https://www.coronavirus2020.kz



As of 7 December 2022, 55.9% of Kazakhstan's 19,375,969 people had received at least one vaccine dose, and as of 17 January 2023, 54.7% had completed the full initial COVID-19 two-dose protocol (Mathieu, 2020b; Our World in Data). There was initially slow uptake of vaccination, but there was a sharp increase from June 2021 (see Figure 3).

**Figure 3: Vaccination statistics in Kazakhstan**




*Note. From Vaccines. (n.d.). Johns Hopkins Coronavirus Resource Center. https://coronavirus.jhu.edu/vaccines*

**Table 3: Vaccination stages in Kazakhstan**

| Stage I | Stage II | Stage III |
|---|---|---|
| 100,000 people from 1 February 2021 | 150,000 people from March 2021 | 600,000 people from April 2021 |
| Stage IV | Stage V | Stage VI |
| 600,000 people from May 2021 | 600,000 people from June 2021 | 600,000 people from July to December 2021 |

*Note. Adapted from the Press Service of the Prime Minister of the Republic of Kazakhstan. (19 January 2021). Kazakhstan planned to vaccinate up to six million people by the end of 2021, per the MOH.*

In Stage I, medical workers of infectious disease hospitals, emergency medical carers, and hospital emergency room workers were eligible for vaccination. Stage II targeted secondary school teachers, university workers, medical services workers from government departments, boarding school teachers, kindergarten teachers, students, and people with chronic diseases. Stages III and IV of the vaccination rollout were aimed at employees of the Ministry of Internal Affairs, the Ministry of Emergency Situations, the Ministry of Defense, the National Security Committee, medical workers of other hospitals, non-teaching kindergarten staff, and people with chronic diseases.

Stage V targeted staff of medical and social institutions, employees of children's closed institutions, and people with chronic diseases. Remaining people were to be vaccinated at Stage VI.

There was widespread distrust in vaccines by the population (Ashimov, 2020; Altynbayev 2020), and the efficacy of COVID-19 vaccines generally was widely doubted, even amongst the medical practitioner community (Interviewee 1, personal communication, 27 November 2022; Interviewee 5, personal communication, 28 February 2023). Doctors and nurses were distrustful of vaccines from Russia, China, and Kazakhstan. Government information campaigns were a major factor in the ability of large parts of the population to participate in the vaccine rollout on paper, but not to physically receive the injections (Interviewee 5, personal communication, 28 February 2023). A cottage industry of false vaccination papers emerged, with the medical community working together with the general population against the government policy (Lillis, 2021). In Kazakhstan, though, there is a secondary layer of distrust, given a history of twentieth-century government policies targeting ethnic Kazakh people, combined with the current campaign in China's Xinjiang against ethnic Kazakhs (Pianciola, 2001; Mao, 2018l Wedelich, 2021).

Kazakhstan's government policy can be characterized by the emergent influence of vaccine diplomacy and the limitations of Kazakhstan's dependence on Russia and China. Where alternative vaccine options existed, Kazakhstan's relationships with Russia and China continued to affect its decisions regarding vaccines, such as the HayatVax vaccine, which is produced in the UAE but based on Chinese intellectual property and production processes. Kazakhstan received China's VeroCell (Sinopharm),[2] which is the same product as Hayat-Vax (produced under license in the UAE), demonstrating the level of saturation of China's vaccines in Kazakhstan.[3]

## 1.2. Vaccine diplomacy more 'two-neighbor dilemma' than 'multi-vector foreign policy'

Despite having been independent since 1991, Kazakhstan still maintains very tight economic, cultural, and political relations with Russia. Balanced against this dependency, China's economic influence in Kazakhstan has grown over recent decades. According to the National Bank of Kazakhstan, China had USD1.8 billion in foreign direct investment in Kazakhstan, the fifth highest inward FDI to Kazakhstan by country, just one place behind Russia's USD1.9 billion (Forbes.kz, 2022). China's investment in Kazakhstan focused on traditional and renewable energy, giving Kazakhstan new markets for oil and gas and developing its domestic capacity for solar and wind farms.

[2] The SARS-CoV-2 Vaccine (VeroCell) is an inactivated vaccine against COVID-19 which stimulates the body's immune system without risk of causing disease (Sinopharm [Vero Cell]- Inactivated, COVID-19 Vaccine, n.d.).

[3] Hayat-Vax is a joint collaboration between Sinopharm CNBG and Abu Dhabi's G42 (Sherif, 2021).



Kazakhstan's vaccine dependence is rooted in a series of quid pro quos, as it is unable to freely make foreign policy, including foreign health policy, due to a series of interlocking engagements with China and Russia in other spheres of economic and political life. In the opinion of the Interviewee 3, refusing Chinese vaccines in order to buy BioNTech or AstraZeneca might result in Kazakhstan losing Chinese investment for an energy project (Personal communication, 13 December 2022). Despite Kazakhstan's articulation of a multi-vector foreign policy, its ability to independently set foreign policy remains weak.

Given the high degree of public distrust in government relations with either Russia or China, coupled with the national government's stated foreign policy direction of pursuing a 'multi-vector foreign policy', it remains difficult to understand why the two-neighbor dilemma persists. Despite higher degrees of trade with the European Union, the pandemic policy caused an immediate reversion to bilateral authoritarian regime cooperation in order to solve public health challenges. In terms of public health policy and vaccines, there is no reason why Kazakhstan could not have imported vaccines from the European Union or the US. Thus, it is difficult to understand why the Kazakhstan bureaucracy has chosen to persist with this two-neighbor approach when it clearly is not beneficial in this situation.

Health diplomacy, then, may take up the position previously occupied by Belt and Road projects in China's relationships with Kazakhstan and Central Asian states. There could be a resurgence of public health diplomacy in which China brings more advanced technology and more cheaply produced goods as a genuine form of maintaining trade relationships. There is a similar level of state action in Russia's vaccine diplomacy. However, another outcome of global vaccine diplomacy is that Russian and Chinese vaccines are largely not accepted by Western countries for travel, making them de facto second-class vaccines globally.

## 1.3. Research methodology

Research was based on collecting both primary and secondary data. Five in-depth interviews were conducted with a representative of a medical association in Kazakhstan and local academics and international relations representatives who focus on China geopolitics and macroeconomics. Interviewees wished to stay anonymous. There were challenges in getting interviews from people who are aware of vaccination procurement information, as this information is privileged.

**Table 4: Interviewee information**

| Interviewee | Sector | Date | Method |
|---|---|---|---|
| Interviewee 1 | Representative of medical association in Kazakhstan | 27 Nov 2022 | Online |
| Interviewee 2 | Researcher on China's soft power | 24 Nov 2022 | In person (in Almaty) |
| Interviewee 3 | Researcher on China, Central Asia geopolitics, and macroeconomics | 13 Dec 2022 | Online |
| Interviewee 4 | World Bank consultant in Central Asia | 11 Jan 2023 | Online |
| Interviewee 5 | Political scientist, Suleyman Demirel University, Almaty, Kazakhstan | 28 Feb 2023 | Online |

Secondary data collection was based on national COVID-19 statistics, the Kazakhstan MOH web-portal, the state procurement website, official news sources, and national and international reports on COVID-19.



# PART II: INFORMATION ACCESSIBILITY

*"Vaccine rollout was low in Kazakhstan. It was not the result of vaccine deficiency. No data and no research can show the real situation on the ground. No one knows the real share of vaccinated and unvaccinated people. The people here fell victim to Russian propaganda about vaccines, and those who did not believe in this propaganda did not trust Russian and Chinese vaccines. On the other hand, most felt deep distrust of anything the official organs tried to do because of people's fatigue from the Nazarbayev regime."*
-Interviewee 5 (Personal communication, 28 February 2023)

## 2.1. The national approach

A slow-moving, reform-hesitant state stuck with so many institutional legacies from the Soviet Union, Kazakhstan's approach to information collection and dissemination through the pandemic was characterized by the national system approach (Kazakhstan and Uzbekistan experiment with vaccines amid lack of public confidence, 2021). Policy, action, and information was centrally controlled. While Kazakhstan's public administration is composed of oblasts (a type of administrative division) with highly differentiated polities, there is no federal system and very little devolution of powers or responsibility to local governments.

All centrally collected information was organized on the national web portal, available in Kazakh and Russian languages, with information sections with updates on: daily cases and deaths; PCR test results; news; important information; and FAQs. It also has statistical information about vaccination rates for first and second doses of the vaccines. However, it contains no information about vaccine availability, such as procurement volumes, prices, sources of supply, or other related information.

Most oblasts were beholden to the central system, and citizens had to wait for the central system to update their regional data. One standout case was the oil-rich oblast of West-Kazakhstan, which had the resources to create a local web portal to post information about the West-Kazakstan vaccination rollout. It created a special web resource, Stopcovid.kz, which is the official online resource for informing the region's public about COVID-19. It contains information about PCR test sites, places with the official QR code permission system "Ashyq", and legal documents related to the pandemic. The website's vaccination information includes resources on the people in medical organizations who are responsible for vaccination and their contact information, and the availability of vaccines in health facilities. Data on medical organizations is also filtered by vaccine type.

A key feature to emerge from Kazakhstan-based interviewees was the difference between, on the one hand, the government-controlled narrative and statistics on infections and vaccines, and on the other, what interviewees witnessed on the ground (Kazakhstan MOH, 2021; Lillis, 2021). This was particularly salient with regards to the vaccine rollout and the widespread use of fake certificates to circumvent it (Lillis, 2021; Kazakhstan: Boom in Fake Covid-19 Certificates, 2021; Kazakhstan is awash in fake vaccination passports, 2021).

Data sources on the vaccination rate are essentially unreliable due to the haphazard nature of the vaccine rollout and the system for disseminating information (Interviewee 5, personal communication, 28 February 2023). Taking data from the "Our World in Data" portal as a baseline, Kazakhstan ranked 91st out of 194 countries for percentage of population receiving at least one dose as of January 2023 (Understanding Vaccination Progress by Country, 2023). While estimates in early 2023 of the official rate of double-dosed vaccine treatments were around 54.7%, Interviewee 5 asserted that only a small percentage of the Kazakhstan population actually received the physical injections, and estimated the vaccinated population at somewhere around 25% (Kumanov, 2021; Interviewee 5, personal communication, 28 February 2023).

One of the main reasons for the slow vaccination rollout was that the government largely failed in its information campaign (Vaccination of citizens, 2021). This was reiterated by Interviewees 1 and 5. The vaccination campaign was planned to begin in February 2021, but by early April the number of vaccinated citizens still did not exceed 1% of the population. According to research conducted in February 2021 by 4Service Group — a customer experience management consulting firm — on the attitude of Kazakhstan citizens regarding vaccination, almost half (48%) of respondents did not plan to be vaccinated (Kazakhstan citizen's attitude towards vaccination, 2021).

## 2.2. Space for alternative media and third-party platforms

There was chaos in government bodies about which would take responsibility for the vaccination information campaign. There were mismatched and reactive communication methods rather than any unified strategic approach by either the MOH or local government administrations, which led to ineffective communication with citizens (Gumirkina, 2021). This was also confirmed by Interviewee 1 (Personal communication, 27 November 2022). Additionally, there was a pattern of inconsistent action by government officials (Kumenov, 2021). For example, President Tokayev announced his intention to receive the Kazakh vaccine (Urankayeva, 2021), but later Press Secretary of the Head of State Berik Uali announced that Tokayev was actually vaccinated with Russia's Sputnik V vaccine (Tokayev is vaccinated, 2021).

Already high levels of skepticism towards the government vaccination program among the population increased due to the lack of an information campaign (Asautai, 2021). Along with long-standing general distrust of post-Soviet governments' ability to deliver vaccine programs (Costa-Font, Garcia-Hombrados & Nicińska, 2023), this helped to ensure that the government information campaign was likely to be ignored and maligned before it even started.

Given the absence of information campaigns, one major source of information which emerged as a trusted source was the Instagram page of MedSupportKz, led by professional doctors as their personal initiative (Reznik, 2022).[4] The social media page provided a range of reliable information about COVID-19 vaccines, types of vaccines available, how each vaccine worked, replies to the question regarding mass vaccination measures by the central government, booster vaccination necessities, and the possible consequences of vaccination. Additionally, MedSupportKz streamed live videos and published video interviews with doctors and scientists about the vaccination rollout and procedures.

Another web resource, Central Asian fact checking web portal Factcheck.kz,[5] provided investigative analysis and arguments against fake information and destructive anti-vaccine propaganda. Independent media resources like Masa Media worked with Factcheck.kz to conduct research on lobbying campaigns that were working to limit dissemination of information (Yesimkhanov et al., 2021). The information vacuum naturally led to a range of alternative popular discourses taking hold and fostered cultures of vaccine hesitancy, skepticism, and refusal. It also created space for conspiracy theories and outlets for anti-Russia and anti-China sentiment. This in turn created space for the government to reassert control and use the pretext of anti-misinformation policies to squash legitimate political criticism of the government by labeling political activities as COVID-19 misinformation (Kumenov, 2021).

## 2.3. Misinformation, disinformation, and propaganda

A major trend was the high degree of distrust of the government combined with concerted state information campaigns by Russia and China. This resulted in a swamp of misinformation where individuals were forced to navigate official media and social media while assuming many state sources of information to be untrustworthy. State disinformation campaigns on COVID-19 in Kazakhstan came from both Russia and China (Kenderdine, 2020), and misinformation spread among social media users (Mustafina, 2021).

Instagram is the social media of choice in Kazakhstan (Yeskenov, 2022). Young Kazakh people are highly connected and independently participate in social media

[4] MedSupportKz is a community of scientists and medical professionals promoting scientific and empirical thinking in relation to medicine, healthcare and personal health. MedSupportKz was created in May 2020 and its Instagram page was a highly popular source of COVID-19 information on social media (Zhusupova, 2021).

[5] The Factcheck.kz community is composed of professional journalists with experience in covering social issues, economics, culture, politics, etc., who decided to launch the first fact-checking resource in the country and Central Asian countries.

discourse (Mashan, 2021). Their parents consume a different generation of media, however. Attitudes towards vaccine acceptance discourses depend on multiple factors in Kazakhstan, including education level, access to foreign media, and economic resource level (Interviewee 5, personal communication, 28 February 2023). However, perhaps the greatest bifurcation in Kazakhstan's vaccine skepticism discourses was between consumers of Kazakh language discourses and consumers of Russian language discourses.

### 2.3.1. Kazakh media narratives — fluctuation between fear and superiority

Analysis of Kazakh vaccine discourses that spread widely in Kazakh language demonstrate a clear link between the perception of the vaccine as an outside intervention in Kazakh life and previous historical generational traumas of the Kazakh people, such as the Asharshylyq forced starvation event of the 1930s, the Virgin Lands displacement policy of the 1950s, or the exodus of Ili from China after the Yi-Ta Incident in 1962. Kazakh people have survived a series of ethnic traumas, and in the twenty-first century Kazakhstan is only beginning attempts to rectify these depopulation events (Pianciola, 2001; Mao, 2018; Wedelich, 2021). This means any national catastrophe or global calamity is subject to 'Kazakh-saving' discourses (narratives of preserving Kazakhness and Kazakh people) or 'Kazakh-prism' discourse (which aligned the global pandemic narrowly through an ethnic Kazakh experience prism) (Interviewee 5, personal communication, 28 February 2023).

In response to the pandemic, a range of discourse and policy outcomes were disseminated from national Kazakh leaders and in Kazakh language media. However, these narratives fluctuated radically between fear of bio-attacks and cultural superiority. The initial fear of a bioweapon from China and distrust of any government response gave way to the 'Summer of Kumys', in mid 2020, with a boom in endorsements for traditional folk remedies to protect against or cure COVID-19. Cultural products touted as cures or prophylactics for COVID-19 included Kumys fermented horse milk, Qazı horse sausage, horse meat, lamb fat, and even the pink salt of Lake Kobeituz (Kumys being Used to Treat Coronavirus, 4 August 2020; Qazaqstan TV, https://qazaqstan.tv/news/129788/; Kumenov, 2020). Anecdotally, the initial propagators of the folk remedy advice were ethnic Kazakhs living in China, mainly in Xinjiang; having previously lived through SARS and MERS outbreaks before, they passed informal information into Kazakhstan that folk remedies and traditional food protected against coronaviruses (Interviewee 5, personal communication, 28 February 2023).

Kazakh leaders such as Balgyben Imash welded conspiracy theory-type narratives into their political positions. They often refused the vaccine. After the Summer of Kumys, though, Kazakh traditional leaders generally backed down from their strong anti-vaccine position and began publicly accepting vaccination ('At first I thought it was politics': Balgynbek Imashev admitted that he was mistaken that there was no coronavirus, 18 May 2020, Jetisu. https://7-su.kz/news/cat-6/7572/; Interviewee 5, personal communication, 28 March 2023). The reversal came amidst a skyrocketing death rate, but it was largely performative and only moved the national Kazakh position back towards the center, dismissing the more wild claims of a virus hoax, a genetic attack on Kazakhs, and vaccine skepticism in favor of a centrist government line ('Enslave the World': Balgyben Imash Votes against Mandatory Vaccination, Skif News, 5 July 2020).

# PART III: ENSURING EQUITY

## 3.1. Decision-making equity

While most Kazakhstan citizens distrusted the government's ability to deliver vaccine equity, self-organized vaccine tours opened international markets to individuals, and medical practitioners widely supported the personal choices of vaccine skeptics (Kumenov, 2021). The high degrees of vaccine hesitancy in Kazakhstan meant that by the end of the vaccine rollout there were enough vaccines, but not enough people demanding them.

Perhaps the greatest loss to the government's vaccine rollout campaign, and the greatest ally in citizen choice for vaccine hesitancy, was the loss of some medical professionals who did not accept or approve of the vaccines procured by Kazakhstan (Kumenov, 2021; Aidos, Bolatov, Telman, Seisembekov, Altynay, Askarova & Pavalkis, 2021). Many within the medical establishment actively worked against the government rollout campaign (Interviewee 1, personal communication, 27 November 2020; Interviewee 5, personal communication, 28 February 2023). To a large degree, the fake certification regime was only able to succeed because of the support of the medical professional community (Interviewee 1, personal communication, 27 November 2022; Interviewee 5, personal communication, 28 February 2023). There were multiple cases of independent scientists and doctors in Kazakhstan opposing the domestic vaccine QazVac (Dozhanov, 2021). They said that the developers had not provided the results of clinical trials for this drug and had used questionable components in its creation. Vaccination of Kazakhstanis with the local drug QazVac began at the end of April 2021, even before the completion of the third (final) phase of clinical trials (Dozhanov, 2021). The developers then claimed that QazVac was absolutely safe, and estimated its effectiveness at 96%, stating that it was in no way inferior to Russia's Sputnik V (Dozhanov, 2021). The natural alliance of vaccine skeptical patients and vaccine skeptical doctors created a symbiotic social relationship then ensured vaccine equity for the vaccine hesitant, who could quite easily circumvent the national vaccination program by purchasing a vaccine certificate from a qualified medical professional.

The government's attempts to ensure widespread access to vaccines took a variety of public forms of display. Kazakh authorities encouraged citizens to get vaccinated against COVID-19 by drawing valuable prizes, like vacation packages to resorts, iPhones, apartments, cars, and other gifts (Mustafina, 2021). Big shopping malls had areas for vaccination, so that citizens could have easy access to vaccination (Mustafina, 2021). Lists of vaccination points at medical organizations, and contacts for them, were posted on official websites. It was possible to sign up to the government e-portal with an SMS notification and it was possible to get vaccinated at shopping and entertainment centers (Dzhandosova et al, 2021). Through these measures the government took a populist and effective approach to ensuring equity



in the vaccine rollout, and it rolled back a planned mandatory vaccination program, allowing more individual choice (Kumenov, 2020).

## 3.2. Differences in Kazakhstan regional equity

While there were differences in preference among Kazakhstan citizens living in rural and urban regions (see Table 5), there was a fairly flat information and vaccine access dynamic, suggesting a high degree of regional equity. According to a survey on vaccine manufacturer preferences among urban and rural citizens (Dzhandosova et al, 2021), the Kazakh vaccine is more trusted by villagers (16.9%) than urban residents (6.1%); by contrast, the American-German vaccine is more trusted by people from urban areas. Of note, survey respondents mentioned the Chinese-made vaccine little, if at all (any such mention would fit within "Other country" in Table 5).

**Table 5: Preferences by vaccine manufacturer by urban/rural populations**

| | Urban (%) | Rural (%) |
|---|---|---|
| Kazakhstan | 6.1 | 16.9 |
| Russia (Sputnik) | 22.4 | 30.4 |
| American-German (Pfizer/BioNTech) | 10.0 | 5.5 |
| Other country (specify) | 0.3 | 2.1 |
| I don't know/difficult to answer | 61.2 | 45.1 |
| Total | 100.0 | 100.0 |

*Note. From Dzhandosova Zh. S., Sharipbaeva A.E., Baitugelova N.Yu., Smagulova Sh.K., Kudasheva T.V., Dzhandosova F.S. (2021). COVID-19 in Kazakhstan: scale of the problem, assessment of health and social protection services. PF "Sanj Research Center". https://www.soros.kz/wp-content/uploads/2021/08/Covid-19-в-Казахстане-масштабы-проблемы-оценка-услуг-здравоохранения-и-социальной-защиты.pdf*

However, despite the marked difference in rural vaccine preference, the Kazakhstan government generally ensured availability of sufficient vaccines in all regions and for all groups of the population, though there were some reported cases of deficits in eastern regions of Kazakhstan (kt.kz, 2022). Vaccination opportunities were also available for labor migrants, and for foreigners with registration or residence permits (Kaliyev, 2021). Interviewee 5 reported that family members in rural localities around the isolated eastern city of Oskemen were able to easily receive the vaccine of their choice, including Pfizer.

### 3.3. International inequity leaves Kazakhstan behind

For most of the vaccination campaign, only three vaccines were widely available in Kazakhstan: Sputnik V (Russia), QazVac (Kazakhstan), and Sinopharm (China). Basically, only one vaccine approved by the WHO was available for Kazakhstan citizens, which is Sinopharm (China). Initially, the Pfizer vaccine was available only for children 12-18 years old, women 16-30 weeks pregnant, and nursing mothers. It became widely available to all population groups only in November 2021, when the first portion of a major procurement had been concluded. This lack of variety of available vaccines was due to a combination of market availability and Kazakhstan government policy efforts.

Due to unavailability of preferred vaccines, including those approved by the WHO, Kazakhstan citizens started to use "vaccine-tours". The most popular destinations were the UAE, Turkey, Croatia, and Bulgaria. The lack of a choice also pushed many citizens to get Moderna or AstraZeneca by traveling to neighboring Uzbekistan (Popova, 2021). There was more travel to European Union countries from people who had been educated abroad and those with relatives abroad, the young progressive generation of urban Kazakhstan citizens. Access to these vaccines was not available for people with lower income.

From a position of relative strength, as an oil exporting nation, with a license to produce the Russian vaccine domestically, and in close proximity both politically and geographically to both Russia and China, Kazakhstan still managed to deliver a sub-optimal national vaccine program with low levels of vaccine choice for individuals. Where Kazakhstan does fall into the category of intentional vaccine equity victim, the country occupies this position largely through its own internal policy decisions.



# PART IV: ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

While Kazakhstan was one of few countries to produce its own vaccine, the forces of vaccine diplomacy and economic and political dependency were strong. The 'two-neighbor' problem presented acutely in vaccine dependence on Russia and China (Kenderdine, 2022). Self-reliance in vaccine production entirely within Kazakhstan should have been a major success for the national government's vaccine rollout. Instead, lack of transparency around its production created distrust.

### 4.1. Self-reliance in QazVac production underwhelms

QazVac was manufactured by the state Scientific Research Institute for Biological Safety Problems. In August 2020, it was declared that, given the need to provide the population with a vaccine, it would be possible to use QazVac without waiting for completion of all stages of research, and the number of phases of clinical trials would be reduced from four to two (Gumirkina, 2021).[6]

Kazakhstan Minister of Health Alexey Tsoi reported later that, under the agreement between the Karaganda Pharmaceutical Complex (Kazakhstan) and the Russian Direct Investment Fund, the first batch of 20,000 doses of the Sputnik V vaccine would be delivered to start vaccinating the population. After the initial Sputnik doses, the government planned to start vaccinating the population from the beginning of 2021 with QazVac (Gumirkina, 2021). Later, there was a decrease in the first batch of QazVac vaccines produced, from the announced 75,000 doses to 50,000 doses. Ultimately, not enough QazVac was produced for a national vaccine program, and Kazakhstan reverted to reliance on Sputnik vaccines from Russia and Sinopharm vaccines from China. Even had production reached the required levels, there was widespread skepticism of the homegrown vaccine (Najibullah, 2021).

Interviewees 1 and 4 described the chaotic events around the public health system and complete absence of a systemic approach of the MOH, research institutes, SK-Pharmacy (the sole nationwide distributor of vaccines), and other actors during the vaccine distribution process. Interviewee 4 pointed out that the underestimation

[6] Phase IV clinical trials are a post-registration clinical trial of a medicinal product for medical use, conducted by the manufacturer of a medicinal product, the civil circulation of which is carried out after state registration, in order to collect additional data on its safety and efficacy, expand the indications for the use of this medicinal product, and also identify adverse reactions from patients. Phase II clinical trials — which take place if the drug is found to be safe and well tolerated — require the inclusion of more subjects (than Phase I), but with a disease (or condition), for the treatment (diagnosis and/or prevention) of which the active ingredient is intended (Makarevich, 2020).

of the danger of COVID-19 and the slow reaction of government agencies led to a situation in which thousands of citizens had to fight the coronavirus themselves. This was also the case with access to medical equipment such as ventilators and other medicines; 64% of people who needed ventilators reportedly found them difficult to access (Dzhandosova et al., 2021).

### 4.2. Inefficiencies, corruption, and non-transparency in vaccine procurement

There was widespread dissatisfaction with the government's handling of the vaccine rollout, but the baseline level of trust in Kazakhstan's governance system was already low from a history of Soviet institutions and a series of previously mishandled policy interventions, from the currency devaluation in 2015 to the Bloody January unrest in 2022 (Sorbello, 2022; Crisis Group, 2022; Kenderdine, 2022; Casey, 2016). With high levels of distrust among both the general population and the medical community towards the vaccines available (Lillis, 2021; Kumenov, 2021), there was an adversarial climate between government and people. The low demand for and low production of QazVac led to Kazakhstan President Tokayev criticizing his government over its lack of political ownership of the domestic vaccine procurement program. This meant that in the early stages of the national vaccination program only Russian and Chinese vaccines were considered for procurement, with too little QazVac available and a political decision made to avoid Western vaccines in order to ensure supply of Russian and Chinese vaccines.

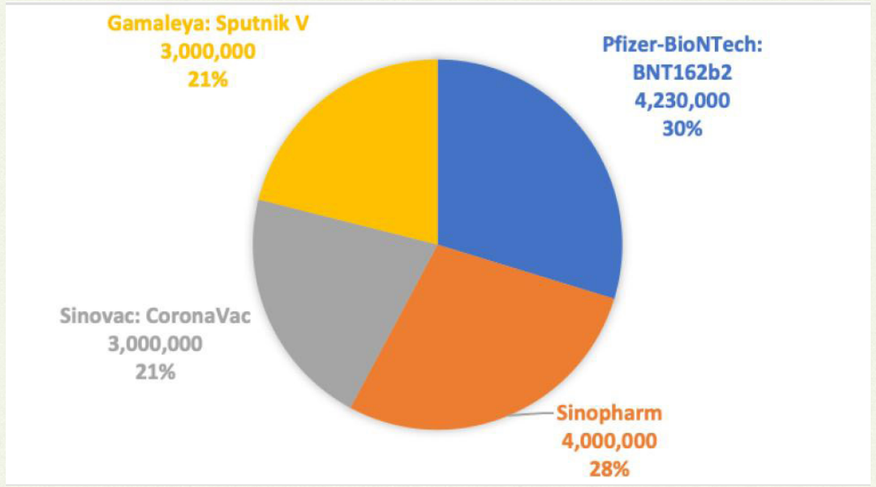
Procuring the China-manufactured vaccine was also plagued by failure or corruption, with one case of a 'loss' of three million vaccine doses. On 26 March 2021, Ambassador of China to Kazakhstan Zhang Xiao gave an interview (Zhulmukhametova, 2021), saying that China had provided three million doses of a vaccine to Kazakhstan. The interview was published initially on the website of the Chinese embassy, from which Kazakhstan mass media portals widely reported it; however, it is no longer available from the Chinese embassy website. Later, Kazakhstan Minister Tsoi claimed that the MOH had not received any vaccine from China. Tsoi later clarified that the MOH is negotiating with each manufacturer, including Sinovac, Pfizer, Johnson & Johnson, and Moderna, and that the MOH had sent commercial requests to each company for delivery of about 2-3 million doses of their respective vaccines. The QazVac Director General of the Research Institute for Biological Safety Problems then claimed in an online briefing that a purchase from China had been completed, of three million empty vials for vaccines (Kazakhstan Today, 2021). The matter was never publicly resolved.

Wider systemic corruption issues in the national healthcare system — due to an increase of quasi-government organizations, and a lack of independent monitoring and control mechanisms — also led to widespread inefficiencies in the vaccine rollout. Measures to equip hospitals and ambulance services with ventilators were taken, but a variety of factors — including underestimation of the danger of COVID-19 and sluggish government agency responses — led to a situation in which thousands of ill Kazakhstan citizens tried to access government hospital health services which did not exist on the scale needed. Several public medical organizations were suspected of corruption in cases of procurement of medicine and ventilators, by overstating unit price in order to skim off a profit, and leading to a sizable theft from the state budget allocated for fighting COVID-19 (Assylbek, 2020).

The Anti-Corruption Agency of Kazakhstan identified major corruption risks in relation to the official country-wide distributor (responsible for procurement of all pharmaceuticals nationally), SK-Pharmacy, which allegedly worsened the situation with regards to pharmaceutical access (Head of the Anti-Corruption service visited the SK-Pharmacy operating warehouse in the Kostanay region, 2020). In the case of the COVID-19 vaccine rollout, SK-Pharmacy was the primary point of contact for Kazakhstan's COVID-19 response, acting as purchaser for both necessary medical equipment and pharmaceuticals purchased as part of the national Kazakhstan health budget. SK-Pharmacy, as a single distributor, provides medicines both to medical organizations and directly to the population within the framework of the State Observatory for Medical Care, and it is tasked with ensuring the development of the pharmaceutical industry by consolidating the public procurement of medicines.

As with most bureaucratized government services in Kazakhstan, the vaccine procurement process can benefit interest groups, incentivizing keeping the process closed. Transparency and accountability on vaccine procurement was severely lacking (Lillis 2021). The Transparency Kazakhstan Foundation (2022) made an appeal to the central government after the mass protests in January 2022, which resulted from corruption and uneven accumulation of wealth (Sorbello 2022). Amidst this wider reckoning of the social contract in Kazakhstan (Thorez, 2022), Transparency Kazakhstan asked the government to take action to publish the details of contracts for vaccines supplied to the Republic of Kazakhstan. There are not clear procedures and publication of the contracts on vaccine procurement and spending. Currently there is no information on procurement of the vaccines. Official requests to SK-Pharmacy have been made within this research project, but no answers have been provided.

**Figure 4: Total confirmed purchased doses in Kazakhstan**




*Note: According to Duke Global Health Innovation, Kazakhstan's received and potential imports of vaccine doses reached total 27.2 million, of which: 17.2 million doses were purchased, 7 million doses were received as donations, and 3 million remained pledged potential purchases (Vaccine Purchases | Launch and Scale Speedometer, n.d.).*

The Government of Kazakhstan failed to adequately organize the procurement and delivery of vaccines. Its failure to take delivery of announced vaccine volumes has been the subject of a Vlast investigative journalism article by Gumirkina (2021). Kazakhstan began its vaccination rollout on 1 February 2021. Two months after the start of the vaccination campaign, only 0.7% of the population had received the first dose of the vaccine, and barely 0.2% were fully vaccinated. In March 2021, President Tokayev pointed out the low rates of vaccination, and the MOH continued to assert that the reason was the unavailability of vaccines in the world. The reality was a series of interlocking political decisions, policy failures, and poor communication strategies.

Given the failures in QazVac and the low uptake of the Russian and Chinese vaccines, there was still space in Kazakhstan's vaccine rollout program to introduce Western vaccines. However, in the international procurement of the Pfizer vaccine, two cases stand out as indicative of government policy to instead align with Russia and China politically. Regarding the ongoing process to procure doses of the Pfizer vaccine, in January 2021, Deputy Chairman of the Committee for Medical and Pharmaceutical Control Nurlybek Asylbekov said that the MOH was still unaware of the volumes needed for import to the country. In early February, the chief sanitary doctor of Kazakhstan announced that a preliminary agreement had been reached with a company to supply the vaccine, expected to be delivered in the second half of 2021. However, two days later, the spokeswoman for Pfizer's representative office in the Caucasus and Central Asia stated that the pharmaceutical company had not yet reached a strong agreement with Kazakhstan on the supply of a vaccine (Mazorenko, 2021). The second case was a government-to-government agreement of humanitarian aid; on 7 November 2022, a draft Agreement between the Government of the Republic of Kazakhstan and the US Department of Health and Human Services on the provision of humanitarian assistance was published on the "Open NPA" portal.[7] According to the draft document, the US Department of Health and Human Services expressed its intention to provide the Government of the Republic of Kazakhstan, represented by Minister of Health A. Giniyat, with humanitarian assistance in the form of approximately 500,000 doses of Pfizer-BioNTech (Turan Times, 2022). However, the Kazakhstan MOH later refused this humanitarian assistance. The stated reason was the short shelf life of the drug.

[7] The portal is intended for posting draft concepts of bills and draft normative legal acts that do not contain information with restricted access for public discussion by users

# PART V: CONCLUSION

In a national emergency, a national government wants the freedom and ability to choose the best solution for the problem it faces. In security, this means being able to buy the best quality and highest strategic value military equipment; in economics, it means having access to best quality and highest strategic value international markets and trading partners. In the foreign policy of public health, this should mean being able, to the best of a country's abilities, to procure the best possible medical solutions for its people. Kazakhstan's governance institutions, however, clearly, demonstrably cannot do this, making the Kazakhstan vaccination campaign wholly ineffective.

If ever there was a time to use Kazakhstan's oil wealth for the benefit of its people as a whole, it was during the pandemic. Production of vaccine products from US and EU economies meant procurement of world-class medicine was a simple market transaction. However, the Western vaccines were ignored, procurement of the Russian and Chinese vaccines was mismanaged, and the public information campaign to bring the protection of the vaccine to the population created only greater distrust in government and governance in Kazakhstan.

There remains little data or information on procurement of vaccines in Kazakhstan. The government has not ensured transparent and open data on vaccine procurement, with no reports on budget spending. Its weak information campaign, the cases of ineffective government measures on COVID-19, and a burgeoning culture of mis- and disinformation around the subject of vaccinations created doubt in citizens' minds about the effectiveness of government vaccination measures.

The people of Kazakhstan were offered no realistic alternatives to the Russian and Chinese vaccines. As with most government services, people were left to make decisions about their own and their family's health alone. People faced international markets, state bureaucracies, vaccine diplomacy, and ultimately health decisions about their own bodies with little more than Instagram as their primary information weapon. Many more politically open and economically developed countries eventually moved to adopt WHO approved vaccines like Pfizer, AstraZeneca, and Moderna, which further restricted the international equity of Kazakhstan citizens to travel abroad. This only deepens the policy monopoly with which the national government of Kazakhstan enfeebles its citizens.



## 5.1. Policy recommendations for the Government of the Republic of Kazakhstan

- Free up government monies from oil revenues for a dedicated COVID-19 relief fund; such a fund could be used to remediate the detrimental effects of the poor vaccine rollout.
- Empower regional governments to better implement local health policy; while a move to full federalism is unrealistic, the 'health federalism' to empower lower government to make local decisions, independent of the central government, could help deliver better ongoing results for people and provide better protection against future pandemic and epidemic events.
- Publish open access reporting on the vaccine procurement process, with details on contracts, volume, and process of use of vaccines.
- Invest in better web communication and data dissemination strategies; empower more young people in government to help build communication platforms.
- Introduce legal mechanisms for transparency and accountability of quasi-government procurement processes at all stages: from planning and implementation of agreements to results monitoring.
- Establish an independent commission to investigate and publicly deliver findings on the QazVac production and procurement process.
- Provide feedback mechanisms for CSOs and individuals to suggest improvements to government policy and mechanisms.
- Introduce a legislative requirement for public reporting on the import and use of foreign medicines.
- Strengthen the role of state statistics in providing open, reliable, timely, and visible information for monitoring and decision-making.

## 5.2. Policy recommendations for CSOs

- Promote projects on media literacy and critical thinking nationwide to avoid the perpetuation and negative effects of manipulative propaganda and false information.
- Partner with local youth communications platforms and health professionals to build competency in effective third-party communication strategies in national emergencies.

- Increase CSO capacity in health related issues, for effective advocacy, engagement of society, and public awareness campaigns on health policy and decision making processes.

- Raise public awareness to improve the quality of public service delivery and to prevent corruption, as well as to decrease the tolerance of corruption within society.

- More consciously monitor differentiated health outcomes in rural and other marginal polities; where the government is not tracking at-risk social groups, CSOs can fill the gap.

- Work with the government to create bridges for third-party data and information management tools; utilize the strength in Kazakhstan's computer science and journalism worlds to create alternative spaces for consuming official data. Government sources of information are not trusted.

- Increase the role of CSOs and their public engagement on health policy issues.

- Continue to monitor, record, and work towards mitigating institutionalized corruption within government organs.



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VACCINE TRANSPARENCY AND ACCOUNTABILITY

INNOVATION FOR CHANGE
WHERE PEOPLE CONNECT TO CREATE TOMORROW

# ABUNDANT ACCESS AND INSUFFICIENT TRANSPARENCY:

## Vaccine Accountability in Mongolia

# PART I: INTRODUCTION

## 1.1. State and trends of COVID-19 and vaccination in Mongolia

### 1.1.1. COVID-19 in Mongolia

Mongolia's Ministry of Health (MoH) first implemented public measures to prevent COVID-19 on 22 January 2020, more than a month before the first registered case of COVID-19 in the country (Minister of Health, 2020a).[1] On 12 February 2020, the Government of Mongolia (GoM) moved to a State of Emergency (SoE) (Minister of Health, 2020b; GoM, 2020c), which remained in place until 14 February 2022 (GoM, 2022).[2] Under the SoE, all types of transportation and flights, first between Mongolia and China, and later with other countries, were suspended (SEC, 2020; GoM, 2020b). In 2020, the Head of the State Emergency Commission (SEC)[3] also took measures to restrict public movement such as: closing kindergartens, schools, universities, and vocational training centers; and banning Mongolian Lunar New Year celebrations. UN (2020) defined the government responses as "a series of strict, prompt, and decisive preventive measures at the beginning of the pandemic" and concluded that these government responses contributed to preventing infection among the domestic population until November 2020.

After the initial response, the GoM began broader policy responses and introduced a new legislative framework. For example, in April 2020, the State Great Khural (the parliament of Mongolia) approved the Law on Preventing and Combating the Spread of the Coronavirus (COVID-19), and Reducing Its Negative Impact on Society and the Economy (the COVID-19 Law). The government announced economic and social measures, including income tax reductions for enterprises and citizens working in the private sector, and increased allowances and monetary assistance for vulnerable citizens (Open Society Forum, 2021). On 14 May 2020, amendments were made to the Law on Disaster Protection, and other laws, in connection with the COVID-19 Law.[4] The changes provided a legal basis for the GoM to plan and implement pandemic response measures.

[1] The first COVID-19 infection in Mongolia was registered on 10 March 2020, when a foreigner traveled to Mongolia and tested positive.

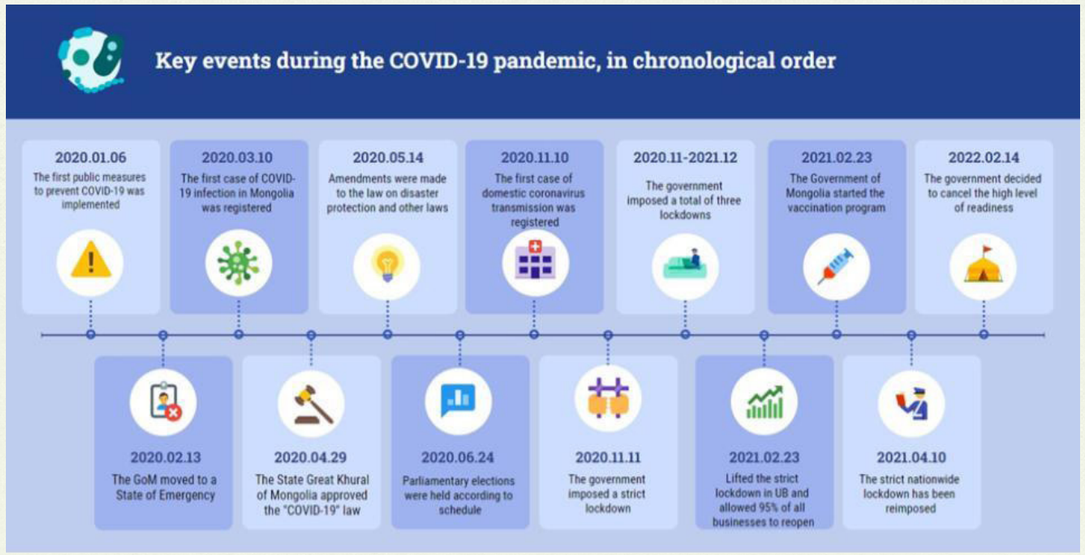
[2] This time from 13 February 2020 - 14 February 2022 is considered to be the pandemic period in Mongolia.

[3] A regular government agency responsible for responding to emergency situations, including pandemics and public health emergencies. The Emergency Staff — a response group to coordinate the implementation of the decisions of the GoM and the SEC, and ensure integrated management for the pandemic response — was established under the SEC on 12 March 2020, by Order Number 6 of the Head of the SEC, and later demoted to an operational team on 11 March 2022, by Order Number 3 of the Head of the SEC.

[4] For example, the Law on Legal Acts was amended, enabling fast track approval of laws and policies by parliament, as was the Law on Infringement, prohibiting disinformation (which in practice limited press freedom and — more concerning — good governance, civic space, and accountability issues) (ICNL, 2022).



**Figure 1: Key events during the COVID-19 pandemic in Mongolia**




*Source: ICNL, 2022*

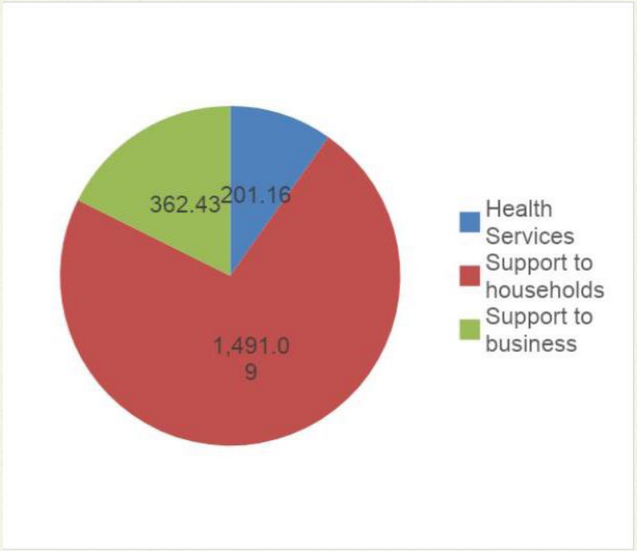
Despite these efforts, the first case of domestic COVID-19 transmission was registered on 10 November 2020, and the government imposed a strict lockdown on 11 November 2020 (GoM, 2020a), the first of three lockdowns between November 2020 and February 2021. On 23 February 2021, the government started its vaccination program (UNICEF, 2021a). After setting several quarantines, on 14 February 2022, the government decided to cancel the high level of readiness (GoM, 2022).[5] As of 28 February 2023, a total of 1,007,899 cases of COVID-19 had been registered,[6] and 2,136 patients had died from COVID-19 (Ministry of Digital Development and Communications, 2022).

The GoM introduced a MNT5.1 trillion (USD1.7 billion) package to address the pandemic in April 2020, and a MNT10 trillion (USD3.5 billion) comprehensive plan to protect health and restore the economy in February 2021 (both COVID-19 relief and a health response package). A significant part of this COVID-19 relief was spent on supporting the finances of households and businesses (see Figure 2). According to a GoM statement on January 20, 2023 (the most recent statement at time of writing), MNT1.2 trillion (USD4 billion) was spent on the health response in 2020-2022 (see Figure 3).

[5] A State of Emergency in Mongolia can have one of three levels: "everyday readiness", "high-level readiness", or "all-out readiness". https://legalinfo.mn/mn/detail/12458.

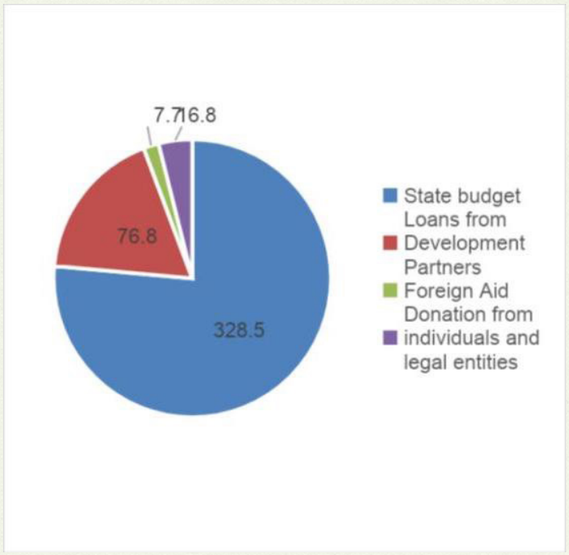
[6] According to the National Statistics Office, the population of Mongolia was 3,409,939 as of 31 December 2022. www.nso.mn.

**Figure 2: Total COVID-19 response expenditures, as of June 2021 (USD, millions)**




*Source: Open Society Forum; Fiscal analysis, 2021*

**Figure 3: Health sector expenditures on COVID-19 during 2020-2021 (USD, millions)**




*Source: Open Society Forum; Fiscal analysis, 2021 Source: NHRCM, 21st Status report on human rights, 2022*

Overall, there were mixed opinions on the effectiveness of the GoM's COVID-19 response. While the World Health Organization (WHO) and independent researchers regarded Mongolia's early containment strategy as successful (WHO, 2020; Baigalimaa 2020), some experts, CSOs, lawyers, media, and others perceived the GoM's overall



pandemic response as poorly planned and inadequately communicated to the public (ICNL, 2022).

It should be mentioned that Mongolia held parliamentary, local, and presidential elections during the pandemic, as scheduled — a positive indicator according to the report of the National Human Rights Commission of Mongolia (NHRCM) (2022), despite violations of the rights of voters in quarantine (NHRCM, 2021) and unfair advantages for the ruling party (Sansar, 2022). The presidential election of 2021 was likely one of the key drivers to speed up the nationwide vaccination program (apart from the obvious public health and economic reasons).

### 1.1.2. Vaccination

Vaccination was considered by all stakeholders, including civil society and government representatives, as one of the most successful response measures taken by the GoM (ICNL, 2022; NHRCM, 2022; Advisor to the Minister of Health, 15 January 2023). The NHRCM concluded that the GoM achieved its duty to vaccinate citizens for COVID-19 with equal access. Vaccine equity will be discussed further in Chapter 3, below, based on the findings of this study.

Following the first domestic transmission in November 2020, a rapid increase of local infections, and a series of strict lockdowns, the GoM changed its strategy. It moved from efforts to contain and prevent domestic transfer to vaccination of a target population within a short period of time, in order to relieve the stress of COVID-19 on public health and the economy.[7] Consequently, the SEC approved the National Plan for Vaccination Against COVID-19 on 5 January 2021, based on the readiness assessment and target population calculations of the National Statistics Office.

**Table 1: Vaccine types and doses received as of January 2022**

| Vaccine type | Planned | Total received | Donated | Purchased |
|---|---|---|---|---|
| Sputnik V | >1,020,000 | 120,000 | >10,000 | N/A |
| Pfizer | >3,714,750 | 3,714,750 | 3,714,750 | 0 |
| AstraZeneca | 262,800 | 262,800 | 262,800 | 0 |
| Vero Cell | 4,300,000 | 4,300,000 | 300,000 | 4,000,000 |
| **Total** | **>9,277,250** | **8,397,550** | **>4,000,000** | **N/A** |

*Source: NHRCM, 2022; GoM, 2021; Ministry of Finance [MoF], 2021.*

Based on the information available (as compiled in Table 1), four types of vaccines were initially available in Mongolia. According to its early plan, the GoM planned to vaccinate the entire adult population (2,067,292 people), which is 60% of the total

[7] The initial plan was to vaccinate 60% of the population within approximately four months.

population (GoM, 2021). For this purpose, the GoM obtained at least 8,397,550 doses by January 2022, including donations of over four million doses from five countries and the COVAX facility:

- India: 150,000 AstraZeneca (GoM, 2021a)
- China: 300,000 Vero Cell (GoM, 2021a; GoM, 2021b)
- Russia: at least 10,000 Sputnik V (MoH, 2021a)
- COVAX: 112,800 AstraZeneca; 126,360 Pfizer (Mongolian National News Agency, 2021a)
- US: at least 1.1 million Pfizer (Eguur.mn, 2021)
- Japan: 2.5 million Pfizer (UNICEF, 2021b)

The NHRCM report states that Mongolia received 1,327,260 doses through COVAX and 450,000 through other donations as of January 2022 (NHRCM, 2022). This discrepancy in the data can possibly be explained by the report considering the US vaccine aid as part of the COVAX facility and excluding vaccine aid from Japan. The procurement contract for 2.35 million Pfizer doses donated by Japan was facilitated by UNICEF and made between the GoM and Pfizer (UNICEF, 2021b);[8] the NHRCM report might have thus considered it as procured, rather than donated.

In addition to the international aid, Mongolia contracted procurement of at least one million doses of Sputnik V (from Russia) — though this was not delivered (as seen in Table 1) — and four million doses of Vero Cell (from China).

The vaccination program kicked off on 22 February 2021, with the receipt of the first batch of 150,000 doses of AstraZeneca vaccine, produced in India and donated by the Indian government (GoM, 2021b). As of 28 February 2022, 2,185,482 people were fully vaccinated, of whom 1,056,683 had received one booster and 139,048 had received two boosters (Ministry of Digital Development and Communications, 2022).

[8] By different accounts it is 2.5 or 2.7 million doses.



## 1.2. Research methodology

This research relied on key informant interviews (listed in Table 2), statistical information, and a desk review of existing documents and reports available on vaccination.

**Table 2: List of interviews**

| Name | Position | Organization | Date of interview | Method of interview |
|---|---|---|---|---|
| Lkhagva-Ochir P. | Governor | Khutag-Undur soum[9] | 14 Dec 2022 | Online |
| Anonymous 1 | Advisor to the Minister of Health | Ministry of Health | 15 Jan 2023 | Online |
| Dr. Gerelmaa D. | President | Women in Medicine Mongolia (CSO) | 20 Dec 2022 | Online |
| Anonymous 2 | Staff | Ministry of Foreign Affairs | 9 Jan 2023 | Online |
| Ayush D. | Chief of Sector | Parliamentary Research Institute | 9 Jan 2023 | In-person |
| Anonymous 3 | Staff | Parliament Secretariat | 12 Dec 2022 | In-person |
| Sugarmaa P. | Public health specialist | None | 15 Dec 2022 | In-person |

Other data sources for the research were: legal acts (such as regulations, decrees, orders from the GoM, the MoH, the SEC, and other relevant agencies); and relevant reports and data (from the GoM, the MoH, the National Center for Communicable Diseases [NCCD], the Health Development Center, the NHRCM, the Ministry of Finance [MoF], and others). To complement information gaps — and cross-check the obtained information — relevant press releases (public statements, interviews, and news articles) published during the COVID-19 period were reviewed. Even so, the lack of official, accurate, and complete data on the topic was a critical limitation of the research.

[9] A soum is a sub-provincial administrative unit in Mongolia.

# PART II: INFORMATION ACCESSIBILITY

While the GoM's COVID-19 response received mixed appraisals, access to information related to COVID-19 was heavily criticized and considered inadequate by the public, civil society, governance experts, and the media (NHRCM, 2021), despite government efforts to provide prompt and accurate information on COVID-19 and government responses. Multiple agencies and pandemic units operated toll-free numbers,[10] to disseminate decisions of the SEC, the MoH, and other government agencies; and to transmit to the public other relevant information on the COVID-19 situation, such as pandemic prevention measures. These numbers received a total of 784,923 calls and complaints in 2020 (NHRCM, 2021).

COVID-19 information was integrated and published on the E-Mongolia integrated public service portal,[11] which contained information on COVID-19 symptoms, guides, and statistics on COVID-19 infections and vaccination. As an integrated public service platform available in phone application format, it was one of the most used and downloaded applications in Mongolia, with over 1.3 million users. It served as a basis for providing all COVID-19 related information. Other government agencies also introduced sections for COVID-19 related information on their websites, including the MoH,[12] the NCCD,[13] and the Health Development Center.[14]

None of the above-mentioned channels, however, published detailed information on vaccine procurement (distribution, availability, expiration, or wastage) or on the different vaccines available. Limited information on vaccine procurement, distribution, and availability was included in the statements of government officials, but only statistics on vaccination centers and the progress of vaccination progress was available publicly, such as: the total number of vaccinations administered and the daily vaccination rate (Figure 5);[15] the number of shots given with each available COVID-19 vaccine in Mongolia (Figure 4); and the vaccination rate by province, published on the Health Statistics Database of the Health Development Center.

[11] https://e-mongolia.mn/home

[12] https://moh.gov.mn/p/147

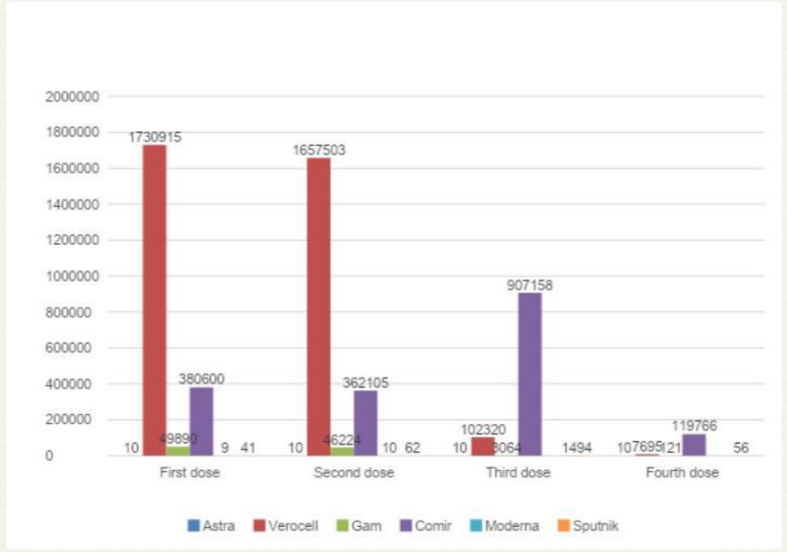
[13] https://www.nccd.gov.mn/index.php/2020-01-25-09-02-10/2020-01-30-02-47-48

[14] https://1313.mn/mn/newsDetail/16469836894608

[15] www.e-mongolia.com/covid-19



**Figure 4: COVID-19 vaccinations by vaccine type, January 2023**




*Source: Health Statistics Database, Health Development Center, 2023 (https://1313.mn/mn/newsDetail/16469836894608)*

Information on vaccines, vaccination plans, and policies were distributed through television,[16] and social media,[17] channels. Information posters on vaccination centers and operating hours, announcements of commencement of vaccination for various population groups, vaccine factsheets, and other information were developed and distributed by various agencies, including the MoH, the NCCD, the National Center of Public Health, the WHO, UNICEF, and others. Posters were also placed in vaccination centers. The contents of the posters mainly covered the locations and time tables of vaccination centers, precautions to be considered before and after vaccination, and possible side effects.

According to the CSO and MoH interviews, there was nonetheless a lack of information on the effectiveness and side effects of each of the available vaccines in Mongolia. According to a representative of the CSO Women in Medicine Mongolia, there was no comprehensive and integrated information provided to the public on vaccines; rather, government agencies only provided responses to requests or questions, resulting in an insufficient understanding of vaccines among the wider public (Dr Gerelmaa, personal communication, 20 December 2022).

[16] The MoH provided information at 11:00AM daily, including about decisions, the COVID-19 situation, vaccinations, and all COVID-19 related information. All television channels broadcast this live, and major news outlets and websites also broadcast it through their social media channels.

[17] The MoH, the NCCD, the SEC, local administrations, and others posted COVID-19 related information on their official social media pages.

An official from the MoH acknowledged the challenge of effectively facilitating information accessibility on vaccines, and pointed out that the government organized various activities to better communicate vaccine information. For example, on the initiative of the Prime Minister, the GoM budgeted MNT500 million (USD140,000) and cooperated with media organizations to promote vaccination in August 2021, with funding from UNICEF. Awareness-raising and training — for the public and medical staff working on vaccination — was undertaken in 2022 (Anonymous 1, personal communication, 15 January 2023).

The NHRCM also highlighted — as the main shortcomings of Mongolia's vaccination plan — the insufficiency of information on: the vaccination plan, the certification status of vaccines used in Mongolia by the WHO and Mongolian authorities, the benefits of vaccination, trials of COVID-19 vaccines, vaccine efficacy, potential symptoms and serious side effects after vaccination, steps to be taken in case of serious side effects, and other relevant issues (NHRCM, 2022). Another NHRCM report — carried out in the second quarter of 2021 — found that despite the high demand for vaccine information (73.3% of participants), most participants (77.5%) did not receive sufficient information (NHRCM, 2022b).

Early research conducted by the Parliamentary Research Institute in February 2021 showed there was no prevalent vaccine misinformation (Ayush D., personal communication, 9 January 2023). However, other accounts suggested that vaccine disinformation was widespread. For example, negative information on vaccines prevailed, such as 'vaccines causing death' (Dr. Gerelmaa, Women in Medicine Mongolia, 20 December 2022). Fake news about vaccine ineffectiveness and negative effects was widespread on social media, and there is suspicion that vaccine disinformation was organized (Anonymous 1, personal communication, 15 January 2023). However, there was no comprehensive assessment of the prevalence of vaccine disinformation in Mongolia to support this. There are existing provisions against "distributing false information" in the COVID-19 Law and the Law on Disaster Protection, but not much information is available on their utility in limiting vaccine disinformation.

Government public communication on vaccines concentrated on speeding up the vaccination rate, while providing no comprehensive data on vaccines, such as about their procurement or doses administered by type. For example, one of earliest vaccine promotion campaigns during the COVID-19 pandemic was the GoM's "Covid Free Summer" media campaign (News Agency, 2021a). This campaign did not provide substantial information on clinical features of vaccines, or any information on vaccine procurement, distribution, or logistics; it mainly distributed promotional content for vaccination, in collaboration with influencers and artists.

The GoM's communication of COVID-19 related information to the public was considered inadequate by the main human rights monitoring body of the government (NHRCM, 2022); an independent research team (ICNL, 2022) also opined that information on vaccines and vaccination were not effectively communicated to the public. Government organizations operated a number of websites where COVID-19 related information was published, and later in 2021 the GoM organized information



communication campaigns on vaccination, some in cooperation with UNICEF or other organizations. Despite this, detailed information and data on vaccination plans, and vaccine procurement is still not available. The public received limited information, including on vaccine procurement, plans, and distribution, mainly through statements from government officials distributed through various media outlets. In 2021, study results revealed that three quarters of the population did not receive sufficient information (NHRCM, 2022b), showing that the public had a serious shortage of information about vaccines.

# PART III: ENSURING EQUITY

## 3.1. Vaccination plan

The GoM rolled out its vaccination plan in February 2021, initially aiming to vaccinate all adults in Mongolia (60% of the population) by July 2021 (GoM, 2021a). It later extended its vaccination targets to children ages 16-17 (from 16 June 2021),[18] and children ages 12-15 (with the Pfizer vaccine, from 28 June 2021).[19] In August 2021, it authorized booster doses for anybody 18 years and older.

The vaccination plan was allegedly approved by Order No. 05 of the Head of SEC on 5 January 2021, but this document is not publicly available. In preparation, the following were undertaken:

- 4,553 doctors and health workers nationwide were trained through 18 online sessions;
- stationary and mobile vaccination units were established;
- calculations of target populations for vaccination were conducted; and
- a vaccination strategy was identified (GoM, 2021a).

In addition, a preparedness assessment (for vaccine logistics and cold chain management) was conducted. Vaccination ultimately began on 23 February 2021, after Mongolia received 150,000 AstraZeneca vaccines through humanitarian support from India (GoM, 2021b).

## 3.2. Vaccination strategy

### 3.2.1. General

Minister of Health Order A/108, approved on 9 March 2021, defined the following target groups for priority vaccination:

- health workers (public and private sectors);
- people with chronic illness;

[18] Order No. A/363, MoH, 15 June 2021, https://moh.gov.mn/uploads/files/c9877f1d23927ec24c347328bc3949959828cd6e.pdf

[19] Order No. A/404, MoH, 23 June 2021, https://moh.gov.mn/uploads/files/70a1fe697258d25f62ff8bc4a9ba97a05fd074f8.pdf



- homeless adults and adults living in nursing houses;
- staff working in disaster response agencies and first responders;
- teachers and staff of kindergartens, schools, TVETs, and universities; and
- staff of organizations whose operations could not be halted.[20]

However, target groups in the ministerial order were different from the priority target groups advertised through media. News website Ikon, referring to the Twitter post of the MoH spokesperson, published the following target groups for vaccination by priority (IKON.MN, 2021). The adviser to the Minister of Health acknowledged that the prioritization of target groups for vaccination could have given more attention to the most vulnerable groups, such as the elderly (Advisor to the Minister of Health, 15 January 2023).

**Table 3: Target groups prioritised for vaccination**

| Target group priority | People in the group (number) | % of total population |
|---|---|---|
| Health sector workers | 56,047 | 1.7 |
| Emergency response staff | 52,750 | 1.6 |
| People above 50 years old | 583,545 | 17.7 |
| People with disabilities | 230,781 | 7.0 |
| People with chronic diseases | 276,937 | 8.4 |
| People who could be mobilized for emergency response measures | 65,937 | 2.0 |
| Employees in strategically important sectors | 329,687 | 10.0 |
| Employees in the education sector | 69,234 | 2.1 |
| Others | 313,202 | 9.5 |
| TOTAL | 1,978,120 | 60.0 |

*Source: Plan: Priorities for administration of vaccines against Covid-19 starting from February 23 [2021] (ikon.mn)*

Although the GoM identified priority groups for vaccination, there is no detailed data or statistics on the implementation and results of vaccination of these groups. For example, there is no detailed information on the percentage of people with disabilities who were vaccinated, whether they were vaccinated according to the intended priority, the types of vaccines administered, or who was not vaccinated and why.

[20] The list is not in order of priority. In the document, all groups in the list are mentioned under the first priority population for a vaccination.

In terms of vaccine equity and target groups for vaccination, the CSO representative interviewed noted concerns that migrants and people in Ulaanbaatar city who were not registered in their district of residence might have been left out or had limited access to vaccination (Dr. Gerelmaa, personal communication, 20 December 2022).

### 3.2.2. Urban first strategy

Vaccination started in the capital city, Ulaanbaatar, and proceeded to priority target groups in the provinces a month later, starting from late March and early April 2021 (see Table 4). That is, vaccination started in urban areas, where the number of active COVID-19 cases and the risk of infection was highest due to the higher concentration of people (Anonymous 1, personal communication, 15 January 2023). Mass vaccination of the general population started in late April 2021, when vaccines became abundant (see Chapter 4.2) after the procurement of the Vero Cell vaccine by the GoM.

**Table 4: Start of vaccination in provinces, and rate of vaccination, by January 2023**

| Province[21] | Starting date of vaccination | Vaccine type (and doses) available on starting date | % of target population vaccinated by Jan 2023 |
|---|---|---|---|
| Ulaanbaatar | 23 Feb 2021 | AstraZeneca (150,000) | 92.19 |
| Arkhangai | 6 Apr 2021 | Vero Cell (4,040) | 77.15 |
| Bayankhongor | 6 Apr 2021 | Vero Cell (4,000) | 78.91 |
| Bayan-Olgii | 7 Apr 2021 | Vero Cell (5,461) | 78.81 |
| Bulgan | 5 Apr 2021 | N/A | 81.50 |
| Darkhan-Uul | 27 Mar 2021 | Vero Cell (1,000) | 80.24 |
| Dornod | 7 Apr 2021 | Vero Cell (8,500) | 83.60 |
| Dornogobi[22] | 31 Mar 2021 | Vero Cell (2,000) | 86.36 |
| Dundgobi | N/A | N/A | 72.11 |
| Govi-Altai | 6 Apr 2021 | Vero Cell | 81.85 |
| Govisumber | 6 Apr 2021 | Vero Cell (1,363) | 88.09 |
| Khentii | 5 Apr 2021 | Vero Cell (4,585) | 84.11 |
| Khovd | 7 Apr 2021 | Vero Cell (5,463) | 77.72 |
| Khuvsgul | 8 Apr 2021 | Vero Cell (5,788) | 76.38 |
| Orkhon | 26 Mar 2021 | Vero Cell (2,000) | 79.40 |
| Umnugobi[23] | 18 Mar 2021 | N/A (13,000) | 99.70 |
| Uvurkhangai | 7 Apr 2021 | Vero Cell (5,577) | 73.04 |
| Selenge | 4 Apr 2021 | N/A | 77.79 |
| Sukhbaatar | 5 Apr 2021 | Vero Cell (4,503 | 88.36 |
| Tuv | 22 Apr 2021 | Vero Cell (1,000) | 78.93 |
| Uvs | N/A | N/A | 75.67 |
| Zavkhan | 7 Apr 2021 | Vero Cell (4,716) | 81.55 |

*Source: Health Development Center, 2023; GoM, 2021; Emergency Department of Govi-Altai Province, 2021; Zindaa, 2021; Ulsturch.mn, 2021; Citizen Representative Khural of Tuv Province, 2021; Selenge Province Administration, 2021; Bayan-Olgii Province Governor's Office, 2021; Mongolian National News Agency, 2021b; Kehntii Province Administration, 2021; Darkhan-Uul Province Governor's Office, 2021; Uvurkhangai Province Governor's Office, 2021; Bulgan Province Citizen Representative Khural, 2021; Dornod Province Governor's Office, 2021; Dornogovi Province Governor's Office, 2021; Mongolian National News Agency, 2021c; Khovd News, 2021; Mongolian National News Agency, 2021d; Mongol Content, 2021a.*

[21] Ulaanbaatar is the capital city, and all other provinces are considered to be rural areas.

[22] Vaccination here started from the main (China) border port, unlike in other provinces where it started from the province center.

[23] Vaccination here started from the main (China) border port, unlike in other provinces where it started from the province center.



Shortly after vaccination began in the provinces, an increased focus was placed on ensuring vaccination in soums (sub-provincial administrative units). In each soum, vaccination was carried out through one stationary and two mobile vaccination units (Lkagva-Ochir P., personal communication, 14 December 2022). The CSO representative and the public health expert confirmed that vaccine equity and accessibility were sufficient, in terms of geographical coverage, despite the slight delay of vaccination commencement in comparison to Ulaanbaatar city (Dr. Gerelmaa, personal communication, 20 December 2022; Sugarmaa P., personal communication, 15 December 2022).

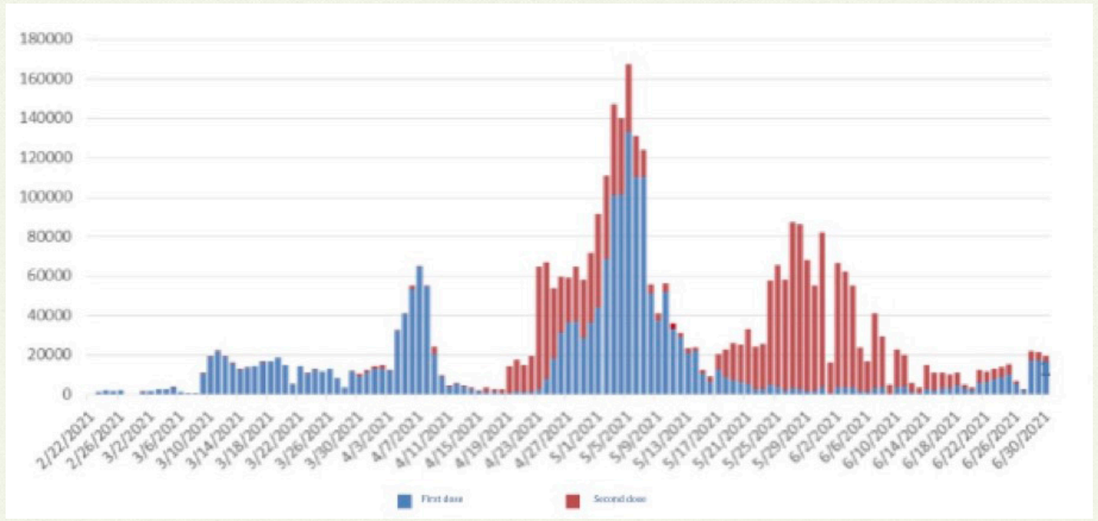
## 3.3. Lack of knowledge as a possible cause for vaccine hesitancy

Due to the lack of knowledge and information on various types of COVID-19 vaccines during the early stages of the vaccination program, people were hesitant to be vaccinated. For instance, according to a poll carried out in October 2020, just 46.4% of participants were strongly or somewhat supportive of vaccination (MoH, 2020), despite the government initiating various promotion and communication activities to accelerate the rate of vaccination (as discussed in Chapter 2, above). This might be related to the vaccination program being mainly dependent on vaccines from China in its first months (see Table 6). For example, a small group of people protested against Chinese vaccines in front of the MoH office (Anonymous 1, personal communication, 15 January 2023). The Vero Cell vaccines attracted concerns related to: the vaccine being in the Phase III clinical trial stage (and not yet approved by the WHO) when Mongolia started using it; and negative information — distributed in some online groups — suggesting the vaccine was not approved by the WHO, and messages such as "Chinese vaccines received through humanitarian aid will be used to vaccinate the military personnel" that raised suspicions and nationalist sentiments (Parliamentary Research Institute, 2021).

In fact, according to content analysis of the information related to COVID-19 vaccines posted on social media (conducted by the Parliamentary Research Institute in February 2021, the first month of the vaccination), only a few social media pages distributed negative information on COVID-19 vaccines. Some only promoted the Russian Sputnik-V vaccine. Overall, information related to COVID-19 vaccines

posted on most influential social media channels was positive (Ayush D, personal communication, 12 December 2022).

**Figure 5: Number of daily vaccinations in Mongolia, February to June 2021**




*Source: E-Mongolia, 2022.*

To accelerate vaccination — in part motivated by the presidential election campaign in June 2021 — the GoM issued Decree No.122 on 5 May 2021, providing an incentive of MNT50,000 (USD18) for people who received a first dose of vaccine. The government also organized several communication campaigns. As a result, the daily vaccination rate doubled, as can be seen in Figure 5. The incentive policy might have helped with mitigation of vaccine hesitancy, along with promotional campaigns such as the "Covid Free Summer".

The MoH official suggested that the COVID-19 vaccination was carried out efficiently overall due to:

- vaccine availability (discussed further in Chapter 4.2, below);
- sufficient logistics and cold chain preparations; and
- government measures to promote vaccination (Parliament Secretariat staff member, 11 December 2022).

The CSO representative generally agreed, saying the vaccination plan was implemented successfully and equitably, despite:

- some concerns about the target group prioritization and vaccine access for unregistered residents in Ulaanbaatar; and
- not enough attention and effort given to recording, monitoring, and responding to vaccine side effects (Dr. Gerelmaa, personal communication, 20 December 2022).



Vaccination started with the most 'at risk' groups and areas, rapidly scaling up to cover — and become accessible to — all of the eligible population. Despite Mongolia's reliance on Chinese vaccines in the first months of the vaccination, availability of the Pfizer and AstraZeneca vaccines increased in the second half of 2021. MoH representatives considered availability of different types of vaccines as a positive factor in achieving vaccination objectives (Anonymous 1, personal communication, 15 January 2023).

# PART IV: ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

## 4.1. Context of budget transparency of COVID-19 response

The GoM approved a COVID-19 response package totaling MNT15.1 trillion (USD5 billion), but details of the package and expenditures related to it had not been published at the time of writing.

Under the COVID-19 Law, the government secured the right to rearrange budget expenditures, within given amounts, without parliamentary oversight. Consequently, COVID-19 related fiscal transparency and accountability was criticized by independent experts from civil society and politicians (Open Society Forum, 2021). Their concerns may have been legitimate: an audit conducted by the Mongolian National Audit Office identified infringements related to MNT3.6 trillion (USD1.3 billion) in expenditures in 2020 (Mongol Content, 2021c), and MNT10.4 trillion (USD3.7 billion) in state budget expenditures in 2021 (Mongolia National Audit Office, 2022).

Issues around public procurement, healthcare budgeting, and spending as part of the COVID-19 response have been highly criticized and questioned. For instance, the tender for the purchase of 20,000 N95 masks (announced by the Capital City Health Department on 5 February 2021) was cancelled due to citizens' complaints about the procurement tender.[24] The main criticisms were:

- The total budget for the procurement was MNT400 million, putting the cost of one mask at around USD7 (significantly higher than the market price); and
- The window for submitting proposals was for three days, two of which were the weekend.

This 'big' budget procurement — announced for a very short period of time — caused concerns among the public, and raised questions about the integrity of the process.

[24] https://ikon.mn/n/24fn



**Table 5: Fiscal support received from development partners from 2020 to 2021**

| Development partner | Funding (USD, millions) |
|---|---|
| Asian Development Bank | 200.0 |
| International Monetary Fund | 99.5 |
| Asian Infrastructure Investment Bank | 100.0 |
| Japan | 242.3 |
| European Union | 18.0 |
| Total | 659.8 |

*Source: MoF, 2021*

The MoF reported that the GoM received USD659.8 million worth of fiscal support (Table 5) from development partners to combat COVID-19 during the pandemic. On top of this, USD111.7 million worth of projects started in 2021 (for vaccine procurement, and to strengthen cold chain management capacity), of which USD90.7 was a loan (MoF, 2021). However, agreements for these loans and aid were not published.

## 4.2. Vaccine procurement

Mongolia did not have domestic capacity and preparedness for vaccine development and production. Consequently, Mongolia was the first country to firmly support the TRIPS Waiver proposal that India and South Africa submitted to the WTO in October 2020, and it joined the proposal on 16 December 2020 (WTO, 2022). Meanwhile, the GoM approved a COVID-19 vaccine procurement plan on 23 December 2020 (Mongolia National News Agency, 2020).

The parliament of Mongolia commissioned the GoM to establish an agreement with relevant international organizations to purchase COVID-19 vaccines (by Decree No 36/2020). Regardless, the GoM was obliged to provide the population with necessary health services, other vaccines and medicines, and equipment during the pandemic (under Section 7.1.23 of the COVID-19 Law). According to Section 34.1.9 of the Procurement Law of Mongolia, the GoM can directly purchase internationally certified vaccines from producers in case of emergency vaccination needs. Consequently, there is no selection process for vaccine procurement.

In February 2021, the GoM rolled out its ambitious plan to vaccinate the target population of over two million people, or 60% of Mongolia's population, by July 2021. To achieve this goal, the plan relied on successful and timely delivery of vaccines. However, during the initial vaccine campaign, the volume of vaccines delivered under COVAX and other bilateral aid was low, and there was a lack of vaccines available from other sources, resulting in a high dependency on Chinese vaccines. For example, although only 50,000 doses of the Sputnik V vaccine were received by May 2021 (despite the vaccine procurement contract having been made for one

million doses), 2.3 million doses of Vero Cell were received between 22 April and 6 May 2021, allowing the vaccination campaign to intensify.

Availability of Chinese vaccines in the early months of vaccination was a result of effective negotiations between the GoM and its Chinese counterparts, and rapid delivery of large quantities of vaccines from China within a brief period of time (Ministry of Foreign Affairs staff member, 9 January 2023). As of 6 May 2021, about 90% of all vaccines administered were from China (GoM, 2021a). This is considerably high compared to later in the pandemic; as of early 2023, just 65.9% of vaccines administered were from China (Health Development center, 2023).

When comparing the daily vaccine administration statistics presented in Chapter 3 (Figure 5) with the vaccine delivery timeline in Table 6, one can see that the vaccination rate increase overlaps with the receipt of Vero Cell vaccines. For example, there were fewer than 20,000 vaccinations per day in Mongolia until April 2021, but the vaccination rate increased to over 50,000 in early April, which coincided with the delivery of the first batch of Vero Cell vaccines. From Table 4, it can be seen that vaccination in most provinces started in early April, using Vero Cell vaccines. The vaccination rate peaked in May (Figure 5), before the receipt of a substantial amount of Pfizer and AstraZeneca in June 2021.

**Table 6: Timeline for vaccine delivery to Mongolia**

| Date | Doses | Type of vaccine | Funding |
|---|---|---|---|
| 22 Feb 2021 | 130,000 | AstraZeneca | Aid from India |
| 23 Feb 2021 | 100,000 | Vero Cell | Aid from Ministry of Defense of China to the Mongolian Ministry of Defense |
| 27 Feb 2021 | 10,000 | Sputnik V | Government procurement |
| 12 Mar 2021 | 14,400 | AstraZeneca | COVAX |
| 2 Apr 2021 | 300,000 | Vero Cell | Government procurement |
| 22 Apr 2021 | 600,000 | Vero Cell | Government procurement |
| 1 May 2021 | 40,000 | Sputnik V | N/A |
| 6 May 2021 | 334,400 | Vero Cell | Government procurement |
| 6 Jun 2021 | 48,000 | AstraZeneca | COVAX |
| 16 Jun 2021 | 84,240 | Pfizer | Aid from Japan |
| 23 Jun 2021 | 85,410 | Pfizer | Aid from Japan |
| 30 Jun 2021 | 85,410 | Pfizer | Aid from Japan |
| 4 Jul 2021 | 20,000 | Sputnik V | N/A |
| 8 Jul 2021 | 30,420 | Pfizer | Aid from Japan |
| 21 Jul 2021 | 92,490 | Pfizer | Aid from Japan |
| 11 Aug 2021 | 117,000 | Pfizer | Aid from Japan |
| 25 Aug 2021 | 113,490 | Pfizer | Aid from Japan |
| 7 Oct 2021 | 899,730 | Pfizer | COVAX (US aid) |
| 18 Jun 2022 | 302,400 | Pfizer for children | COVAX (US aid) |

*Source: GoM, 2021b; UNICEF, 2021a; US Embassy in Mongolia, 2022; UNICEF, 2021b; Ministry of Defence, 2021; MoF, 2021; MoH, 2021a; MoH, 2021b; Peak News, 2021; Eguur.mn, 2021; Urug Mongolian Independent Media, 2021; Mongol Content, 2021b; Daily News, 2021; Mongolian National News Agency, 2021a; Mpress, 2021.*

It is worth noting that Table 6 presents only the available information on specific, dated vaccine deliveries to Mongolia; it excludes deliveries about which there is missing information. For example, Table 6 provides the timeline of delivery for only 1,334,400 Vero Cell doses, though as of 6 May 2021 Mongolia had received 2,924,940 doses, including 2,634,400 Vero Cell (300,000 through aid, and 2,334,400 through procurement) (GoM, 2021a). The GoM's report also stated that by 6 May 2021, Mongolia had received 214,800 AstraZeneca and 25,740 Pfizer doses (GoM, 2021a), the timeline of which is not fully traceable. In other words, there is no publicly available, complete timeline of vaccine delivery. News records also do not fully cover all vaccines delivered, which limits the provision of complete information on vaccine delivery here.

Mongolia's reliance on Vero Cell vaccines purchased from China, especially until June 2021, was due to Mongolia not producing vaccines domestically, and to vaccines from other countries not being accessible (Advisor to the Minister of Health, 15 January 2023).

Overall vaccine access in Mongolia, including through the purchase of four million Chinese Vero Cell doses in April 2021, was made possible by effective diplomacy. The latest information on the volume of vaccines received, as of January 2022, indicates a total of 8.4 million doses received (NHRCM, 2022). Although Mongolia relied on Vero Cell vaccines during the early stages of vaccination, from June 2021 onward it started to receive a large number of Pfizer doses through aid from Japan and the US. In total, Mongolia received at least 4.2 million doses through foreign aid (see Table 7), including over 3.7 million Pfizer doses. Media source The Diplomat concluded that the relatively successful vaccination program in Mongolia was partly driven by its activities to secure and obtain access to a sufficient amount of vaccines through various diplomatic efforts (The Diplomat, 2021).

**Table 7: Vaccine aid to Mongolia**

| Funder | Funding | Doses covered | Delivery channel |
|---|---|---|---|
| Japan | Aid | Approximately 2.35 million | Facilitated by the UNICEF |
| US | Aid | Over 1.4 million | Facilitated by UNICEF through COVAX |
| India | Aid | 150,000 | Direct |
| China | Aid | 300,000[25] | Direct |
| COVAX | Aid | To be clarified | Facilitated by the UNICEF |
| Russia | Aid | 10,000[26] | Direct |

*Source: MoF, 2021; GoM, 2021a; NHRCM, 2022.*

Almost all of the vaccines received were either provided through the COVAX Facility or aid from partner countries, or were financed through loan agreements with international organizations including:

- Support Rollout of COVID-19 Vaccines in Mongolia with the Asian Development Bank (ADB);
- Support for COVID-19 Vaccine Delivery in Mongolia with the Asian Infrastructure Investment Bank (AIIB); and
- the Mongolia COVID-19 Emergency Response and Health System Preparedness Project with the World Bank (MoF, 2021).

However, none of these agreements are publicly available yet. As with the vaccine receipt timeline, information on means of funding vaccines cannot be considered complete, as not all vaccine procurement agreements were publicised. From an MoF statement, it is understood that vaccine procurements were funded (or refinanced) with loans from international development partners (see Table 8) (MoF, 2021).

**Table 8: Development partners funding vaccine procurement in Mongolia**

| Partner | Amount (USD, millions) | | |
|---|---|---|---|
| | Total | Pfizer | Vero Cell |
| Government of Japan | 21.0 | 15.8 | |
| Asian Development Bank | 19.0 | 1.0 | 5.7 |
| World Bank Group | 50.7 | | N/A |
| Asian Infrastructure Investment Bank | 21.0 | 11.0 | 10.5 |

[25] It is unclear whether aid of 100,000 Vero Cell vaccines from the PRC (China) Ministry of Defense is included in the total amount of 300,000 vaccines donated.

[26] Russia pledged to donate 20,000 Sputnik V vaccine doses to Mongolia, but no information is available on the delivery of the second lot (of 10,000 doses).



*Source: MoF, 2021*

There is no complete and accurate information on the total amount of money allocated for vaccine procurement, or sources of funding for this. Overall, complete information on vaccine procurement (including selection, negotiation, procurement, and expenditure) were not made public. Moreover, existing (incomplete) information is contradictory, posing a further challenge to conducting a comprehensive analysis and monitoring vaccine transparency. The lack of information may be partially related to the fact that procurement of Pfizer vaccines was facilitated by UNICEF, and the GoM was not involved directly (Advisor to the Minister of Health, 15 January 2023); the Vero Cell procurement agreements also have a confidentiality clause incorporated (Anonymous 2, personal communication, 9 January 2023).

In general, Mongolia recognized its lack of vaccine self-reliance early, and showed firm support for the vaccine TRIPS Waiver for better access to vaccines for developing countries. Mongolia has also used active foreign relations and diplomatic efforts to ensure sufficient access to vaccines. Around half of the total 8.4 million vaccines were provided through donations from partner countries and the COVAX facility. The other half were directly procured by the GoM, four million of which are Chinese Vero Cell vaccines. Considering that by June 2021, 74.1% of the target population was fully vaccinated (Ministry of Digital Development and Communications, 2022), it can be concluded that Mongolia's efforts to secure access to vaccines were effective. Mongolia also succeeded in raising funds to finance vaccine procurement. Unfortunately, transparency and accountability regarding procurement and access to vaccines have left gaps in public information.

# PART V: CONCLUSION

Mongolia rolled out its vaccination program in February 2021 as a rapid response to increased domestic infections. The initial objective was to vaccinate 60% of the population (around two million people) by July 2021. As of 30 June 2021, Mongolia had fully vaccinated 74.1% of the target population; as of 1 November 2022, 2,283,122 people (65.9% of the total population) were fully vaccinated (MoH, 2022). In this regard, the vaccination program can be seen as relatively successfully implemented.

A crucial factor enabling vaccination progress in Mongolia was access to vaccines, as Mongolia did not have vaccine-self-reliance capacity. In total, Mongolia received around 8.4 million doses (as of January 2022), of which over 2.9 million were received by 6 May 2021 — within three months of commencement of the vaccination plan. Access to vaccines was made possible due to substantial foreign aid and diplomacy. Approximately 4.2 million doses were received through donations and aid from COVAX, Japan, the US, China, India, and Russia. Also, over USD90 million worth of financial support for vaccination was received from the ADB, the AIIB, the World Bank, and UNICEF. Support on ensuring vaccine logistics and cold chain played a crucial role in facilitating the vaccination program.

Although Mongolia had access to four types of COVID-19 vaccines, Vero Cell (4.3 million doses) from China and Pfizer (over 3.7 million doses) from the US were the most common. Availability of various types of vaccines, allowing a degree of choice, was an advantage and a factor in the success of the vaccination program (as concluded by the MoH advisor). However, the first four months of vaccination overwhelmingly relied on the Chinese Vero Cell vaccine (around 90% of available vaccines until June 2021). Due to a lack of access to vaccines in the beginning of the vaccination program, and no domestic capacity to produce vaccines, the GoM had to purchase four million doses of Chinese Vero Cell vaccines to keep the vaccination program running and to achieve its targets. Even though procurement and timely receipt of Vero Cell was made possible by intensive diplomatic efforts, it was criticized as a rushed move, given that this vaccine was in clinical trials and not yet approved by the WHO. Even after the increased availability of Pfizer and AstraZeneca vaccines, Vero Cell remained the main vaccine used in Mongolia, constituting 65.9% of total vaccines administered.

Although the GoM secured sufficient access to vaccines and successfully implemented its vaccination plan, it has failed to ensure transparency and accountability regarding vaccine procurement, vaccine finance, pandemic response expenditures from the GoM, and foreign aid for pandemic response. Confidentiality provisions in vaccine procurement agreements further obscured transparency of vaccine procurement. Complete, accurate, and up-to-date information on vaccine procurement, vaccine price, amount contracted, and amount received was not available. Overall pandemic response expenses — despite totaling over USD5 billion over two years of the pandemic — were not properly disclosed or reported to the public. A state audit identified infringements related to fiscal expenditures summing to over USD4 billion during 2020-2021, which points to a lack of fiscal transparency in pandemic governance.

During the vaccination program, vaccine information access and effective communication were insufficient, not only for Vero Cell, but for all types of vaccines and the vaccination plan in general. Database records on vaccine efficiency, side effects, and vaccine equity were weak, preventing the ability to effectively monitor and respond to potential problems in these regards. The GoM's information and communication efforts were mainly directed toward tracking the rate of vaccination (and vaccine promotion activities), rather than substantial and effective vaccine information communication. The GoM spent substantial efforts and funding in vaccine promotion campaigns, but it remains unknown how effective they were.

The followings are the recommendations for Mongolia:

- The government should provide access to complete information on vaccination and COVID-19 response in general, for various stakeholders, including independent experts, CSOs, and media.
    - This will enable further analysis of the COVID-19 response and its results, reflection on lessons learned, and concrete recommendations for improvement of the legal environment, operational mechanisms, and implementation practices for better emergency response in future.
    - Organization of extensive discussion of vaccination in Mongolia, including challenges and results, would allow better understanding about the vaccination campaign and challenges in implementation.

- As Mongolia successfully secured access to vaccines in early stages of vaccination, it should compile its experience of vaccine diplomacy, and share the lessons and guidance with stakeholders domestically and in other developing countries.

- The GoM and the SEC should review their emergency response management and vaccine communication experience and identify and analyze key factors that prevented their efficiency. In doing so, they should look into emergency response management structure, operational procedures and tools, and results assessment. This could give better understanding into limiting factors of effective vaccine communication in Mongolia.

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