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Humanitarian Leader

**Catastrophe squared: COVID-19 vaccine inequity
in humanitarian crises**

SIMRAN CHAHAL



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Cover image: Muna, a Family Health Care worker for Save the Children in Somalia, teaches families about how to keep safe from COVID-19 and the importance of vaccines © Sacha Myers / Save the Children

Abstract

The COVID-19 pandemic has caused physical, social, and economic devastation all around the world. While more manageable case numbers and immunisation efforts seem to indicate that the world has come a long way in controlling the virus, there is great inequity in vaccination numbers around the world. Low-income countries have only received 14 doses per 100 people—13-fold lower than the 182 doses per 100 people in upper-middle income and high-income countries. This paper highlights the disparity of COVID-19 vaccination rates in high income countries versus those afflicted with crises and raises the need for linking pandemic response with humanitarian assistance.

Leadership relevance

In the humanitarian sector, it is of vital importance to adapt assistance programs and policies to the changing trends in the world. In recent years, a big push has been given to localisation of humanitarian aid. However, this push has not been reflected in access to vaccines, and a strong case can be made for leadership among the humanitarian community to redress this injustice.

Introduction

With over 6.3 million deaths worldwide and counting (Worldometer, 2022), the COVID-19 pandemic is not just a virological disease that has affected the physical health of people, but a global cataclysm of tremendous social and psychological upheavals. The economic shocks caused by lockdowns, and the resulting business shutdowns have exacerbated rising food insecurity. People living in poverty have been disproportionately affected by these outcomes (Devenit, 2021). Lockdowns and curfews affected cultivation-reliant rural communities in Africa, who have suffered a decrease in agricultural output and consequent food insecurity (UNHCR, 2022c). COVID-related lockdowns also closed many schools, affecting 2.19 million children (UNOCHA, 2022a), with many students unable to get back on track with their normal educations since schools began reopening.

Overall, the pandemic has led to an increase in the number of people around the world experiencing humanitarian crisis and requiring humanitarian assistance. In these areas, the risk of the disease is even higher, with the control of the pandemic being less of a priority than basic humanitarian aid. In 2020, of the 34 countries experiencing protracted crises, 25 were at high risk of COVID-19 (UNOCHA, 2022b). This paper will show that these 25 countries, along with others experiencing situations which require aid, are among those with the lowest vaccination rates in the world.

In 2020, of the 34 countries experiencing protracted crises, 25 were at high risk of COVID-19

Many ongoing humanitarian assistance and relief programs were disrupted by COVID induced international travel restrictions. These were programs that were providing crucial basic assistance in vulnerable countries most in need of such support. The disruptions to logistical chains caused by COVID-19 halted these programs, including those providing critical health assistance, putting already vulnerable populations at an even higher risk of communicable diseases, including, but not limited to COVID-19. Immunisation campaigns that were part of humanitarian response operations prior to the onset of the pandemic have also been affected in a lot of countries. HumData recorded the number of immunisation campaigns affected due to COVID induced travel and logistical restrictions and funding cutdowns (UNOCHA, 2022b). Among these, Bivalent Oral Poliovirus, Type II Poliovirus, measles, and Rubella vaccine campaigns have been affected the most (UNOCHA, 2022c). In October 2020 for example, 30 countries had fully or partially postponed their measles vaccination programs due to

COVID-19 (Drexler, 2021). In some places, campaigns that were suspended in early 2020 following the declaration of the pandemic are yet to be reinstated (UNOCHA, 2022c). This is especially concerning, as children all around the world are at risk of diseases such as Polio if even a few cases remain (WHO, 2019).

When immunisation against the pandemic started in late 2020 and early 2021, vaccines reached low and lower-middle income countries last. Public health initiatives in general, and vaccination programs specifically, are already filled with logistical, financial and personnel challenges. But they are even more difficult to execute in areas with humanitarian crises, which have higher logistical constraints, violence, and restricted access, making it challenging for health workers to carry out their duties and meet their program objectives. Now, the COVID-19 vaccine effort is facing these same hurdles.

By comparing COVID-19 vaccination numbers in countries around the world, we can assess inequity in the rate of vaccinations in countries experiencing humanitarian crises and conflict situations, look at the challenges of implementing vaccination programs in these areas, and suggest some policy recommendations to combat this.

Methodology

The ReliefWeb country classification was used to identify countries experiencing crises and conflicts. Currently, 54 countries are classified as facing humanitarian situations by ReliefWeb (ReliefWeb, 2022). This classification refers to countries where there is “a disaster with significant humanitarian impact and ongoing response and/or recovery and reconstruction operations” (Ritchie et al, 2022). Subsequently in this paper, these countries will be referred to as ‘HS Countries’.

Vaccination rates for all countries were compared to assess differences or similarities by using different grouping categories. 202 countries were used for the analysis (Ritchie et al, 2022). HS country vaccination rates were compared with vaccination rates in other countries using the following categories: income (low income, lower-middle income, upper-middle income, and higher income countries, based on the World Bank country income classification levels); type of COVID-19 vaccine administered (mRNA or Viral Vector); geographical location; and whether the country is accepting or hosting refugees.

For the purposes of completeness and to ensure as much standardisation as possible, the rates of vaccination have been chosen to reflect completed COVID-19 vaccine dosages, i.e., the minimum number of required vaccine doses for that regimen (for example, one dose is required for Johnson & Johnson, whereas Pfizer needs two).

COVID-19 vaccination in countries afflicted with humanitarian crises

Figure 1 shows that the world average for people fully vaccinated against COVID-19 is currently just over 60% (Ritchie et al, 2022). The 'Our World in Data' calculator was also used to derive vaccination rates in the 54 HS Countries (Figure 2). This average comes in at just 31.2%, with wide variability within the different income

categories. From the 32 HS Countries that are low and lower-middle income, the average vaccination rate against COVID-19 is 20.77%. In contrast, the vaccination rate in the 13 upper-middle- and high-income HS Countries is 46.9%. There are 10 HS Countries where the vaccination rate is above the world average and seven of these are upper-middle- and high-income countries. This points to inequitable vaccine rates in low versus high economic settings.

Figure 1: World average for people fully vaccinated against COVID-9. (Source: Our World in Data)

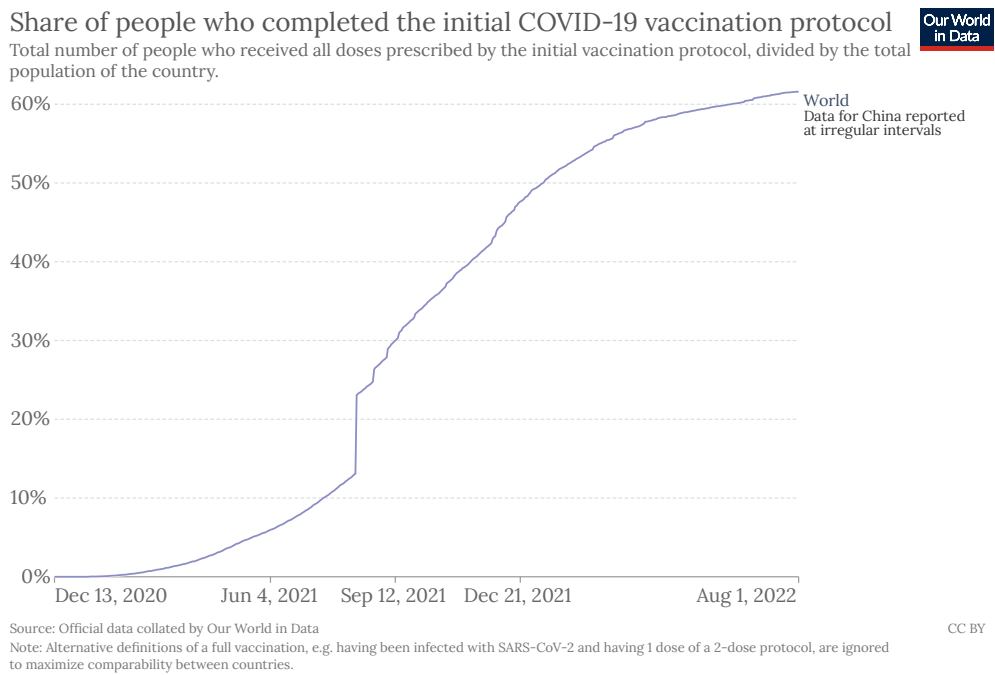
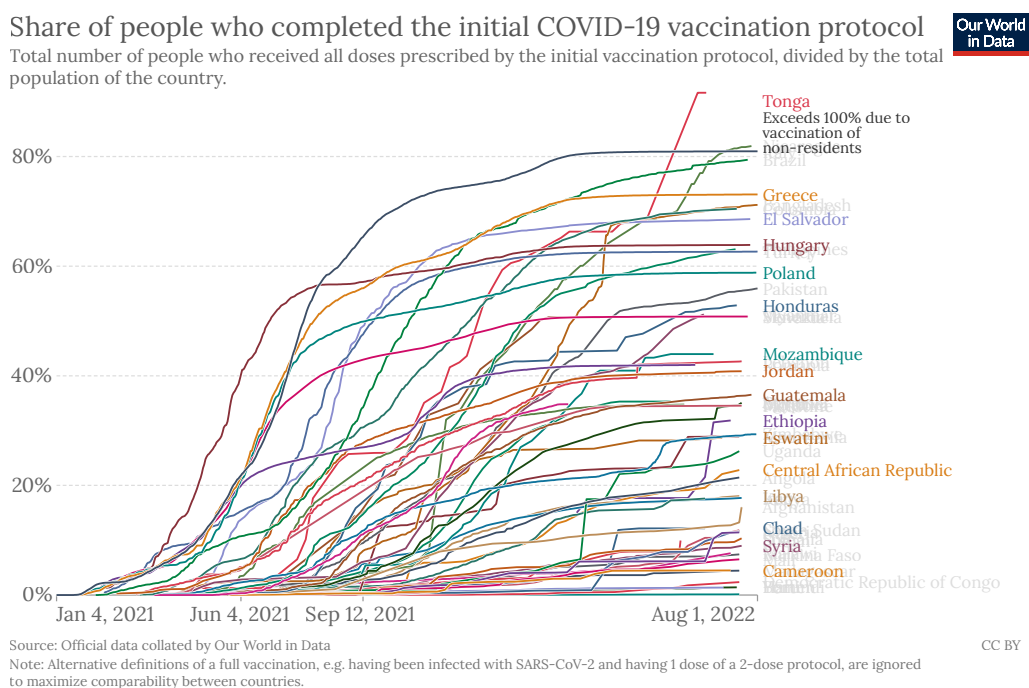


Figure 2: Vaccination rates in 54 countries with current humanitarian situations. (Source: Our World in Data)



A study that observed excess mortality from COVID-19 in 2021 and 2022 states that the highest mortality rates due to the pandemic were found in lower income countries (UNOCHA, 2021). Within lower income countries, it was shown that the difference between the estimated excess mortality and reported COVID-19 deaths was highest in South Asia and Sub-Saharan Africa (UNOCHA, 2021). Overall, vaccination rates in low-income countries are 13 times lower than upper-middle- and high-income countries (Jansen van Vuren et al, 2022).

Compared to 166 vaccine doses per 100 people in the UAE, most African countries had only administered <10 doses per 100 people in 2021

Of the 54 HS countries, 49 are accepting refugees, and 30 have UN-coordinated humanitarian appeals (UNOCHA, 2021). Of these, 24 are African nations. The vaccination rate in this latter group is only 13.9%. Compared to 166 vaccine doses per 100 people in the UAE, for example, most African countries had only administered <10 doses per 100 people in 2021 (Sen-Crowe et al, 2021). Of the 10 countries in the world with ongoing armed conflicts (World Population Review, 2022b), nine are HS Countries. COVID-19 vaccination rates in these countries are as low as 10.2%. These figures are summarised in Table 1. Figure 3 represents the geographical distribution of the 54 HS countries, and their vaccination rates against COVID-19.

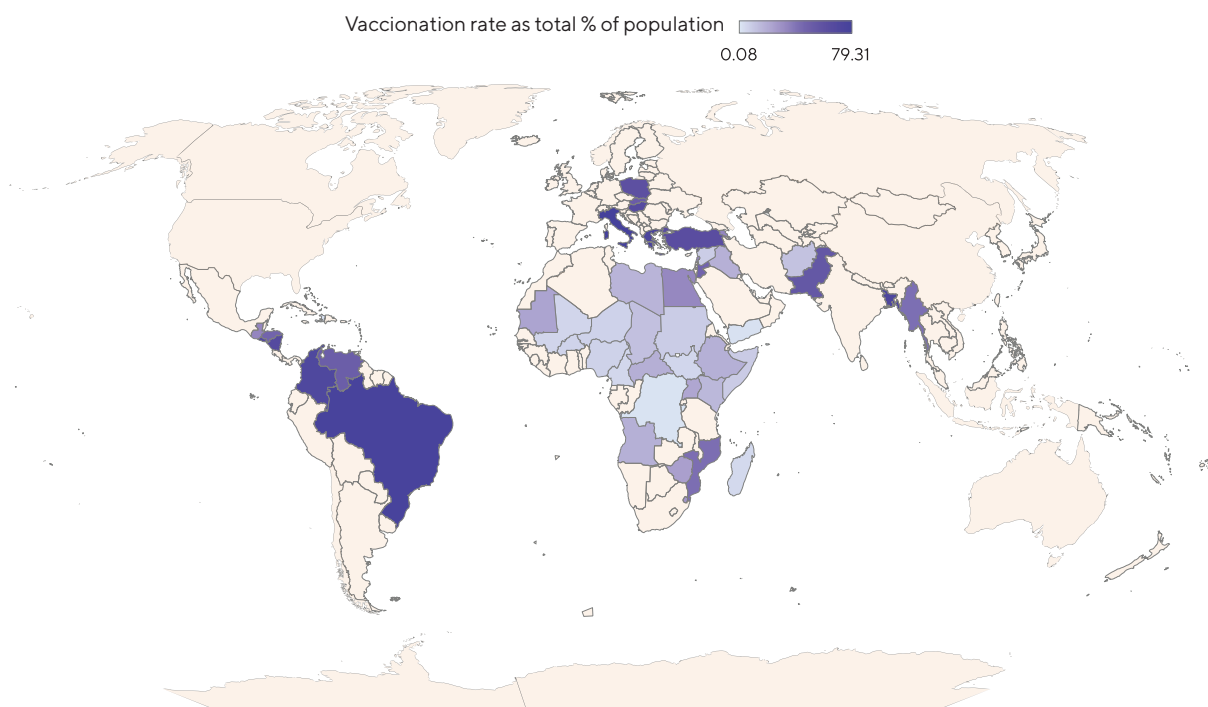
These numbers point to the alarming differences in COVID-19 vaccination rates in countries experiencing humanitarian crises from those who do not. The next section will discuss some of the factors contributing to this.

Table 1: COVID-19 vaccination rates in countries affected by humanitarian situations by income, geography and conflict*

Classification	Number	Vaccination rate (as % of population)
All countries	202	58.59%
Countries with Humanitarian Situations (HS countries)	56	31.20%
HS low and lower-middle income countries	32	20.77%
HS upper-middle- and high-income countries	13	46.90%
African HS countries	24	13.90%
HS countries with armed conflict	9	10.20%

*As of April 2022

Figure 3: Vaccination rates in countries with humanitarian situations. (Source: Simran Chahal)



Causes and hindrances to vaccination

It is evident that vaccination numbers in countries experiencing humanitarian crises are significantly lower compared to countries which do not face such issues. There are several factors hindering vaccination access specifically, and humanitarian assistance overall. This section discusses the factors acting as significant barriers to the effective implementation of not only COVID-19 vaccination programs, but health and humanitarian efforts in conflicted regions in general.

Restricted access

The basic hindrance comes in the form of restricted access—when humanitarian actors and aid workers are unable to get to areas requiring aid because the pathways are blocked. Violence and political control by groups are often the major reasons access is restricted for aid workers—this can either be to support or enforce specific messages, or to demand something in return for access. For example, armed insurgents could seek material help in the form of money or food supplies from aid agencies, or intangible help in the form of support for their ideas. Sometimes the access block can also be set up by governments themselves contending that it is unsafe for aid workers to access areas because of instability, violence, and terrorism. Whatever the reason might be, it stops health and aid workers from accessing vulnerable populations and in-need communities, preventing successful implementation of crucial schemes.

Cold-chain requirements

While violence and restricted access directly affect government's ability to execute public health programs, vaccination programs also come with highly complex logistical burdens. For countries with humanitarian situations, this is further complicated as most are low-income countries with overstressed, underfunded healthcare systems (Okereke et al, 2021).

Recent research has shown that poor coverage of vaccinations for vulnerable populations and inequity of vaccine access are interlinked and impacted by cold-chain requirements (Jansen van Vuren et al, 2022). mRNA vaccines such as Pfizer and Moderna require very cold storage temperatures, and because of this they are mainly beneficial to upper-middle- and high-income countries. Only 20% of low-income countries have opted for mRNA vaccines as they pose high financial and logistical burdens in terms of expensive storage and transport costs (Jansen van Vuren et al, 2022). Freezers with the ability to maintain temperatures below -60C° are not only costly to purchase upfront but are expensive to operate and maintain. Special vehicles are also needed for vaccines to be stored in such freezers,

which are expensive and largely unaffordable for lower income countries and those afflicted with humanitarian crises. This is in stark contrast to the 96% of high-income countries which have been administering mRNA vaccines (Jansen van Vuren et al, 2022).

Poor coverage of vaccinations for vulnerable populations and inequity of vaccine access are interlinked and impacted by cold-chain requirements

Internal displacement and international refugee movements

Population displacement further adds to the challenge of ensuring that adequate numbers of the population are vaccinated. While people regularly move across international borders to seek refuge, there are also many people who are displaced within the borders of their own countries. Currently, there are an estimated 48 million internally displaced people around the world. As of mid-2021, 4.3 million people are stateless (UNHCR, 2022b). Of the 54 HS countries, 49 host refugees, while 28 of them also have internally displaced people (UNHCR, 2022a).

A high percentage—39%—of the world's refugees are hosted in five countries—Turkey, Colombia, Uganda, Pakistan and Germany (UNHCR, 2022b). Four of these (except Germany) are HS countries used in our analysis.

There is more pressure on resources when refugees move because they often move to neighbouring countries—from one developing country to another one (World Population Review, 2022a)—and the least developed countries are often those accepting the most refugees (Ibid.). Eight out of the top 10 countries hosting the highest numbers of international refugees are HS countries. Unfortunately, HS countries are not in the best position to host refugees, as it causes immense pressure on already limited monetary and infrastructural resources. Of the 10 countries with the lowest Human Development Index (assessed as of end-2019), eight are HS countries today—Burkina Faso, Burundi, Chad, Central African Republic, Mali, Mozambique, Niger, and South Sudan (UNDP, 2021).

As observed in section three, COVID-19 vaccination rates in countries hosting refugees are significantly lower than not just the world average, but also low-income countries. This adds further stress to systems, while causing problems for refugees and displaced people who are unable to get vaccinated and may be viewed by local populations with suspicion and as disease-carriers. Further complications may be caused when displaced

people are unable to stay in one place for long and are excluded from local medical records or vaccination programs. They may also be ineligible for host-country vaccination programs because they received a previous vaccination in their home country that is not recognised by the host/transition country, or was not recorded in a format—electronic or otherwise—accepted by or accessible to the host-country’s health administrators. Host/transition countries may also administer different and incompatible vaccines to a person’s home country.

COVID-19 vaccination rates in countries hosting refugees are significantly lower than not just the world average, but also low-income countries

COVID-19 misinformation

Adding to COVID-19 mismanagement in the 24 HS countries in Africa is misinformation about the pandemic. With no proper information dissemination measures in place, there is uncertainty as to whether people are getting access to accurate COVID-19 information (Okereke et al, 2021). There is also a lot of difficulty in accessing accurate COVID-19 data from all regions (UNOCHA, 2021).

Overall, there has been a decline in information on the pandemic in rural Africa. This lack of information, combined with low education rates, means many people are not able to understand how the virus, its vaccines, and clinical trials work (Okereke et al, 2021). If there are no means by which people can understand the disease itself, there is little opportunity to increase their awareness about it. False beliefs and rumours around COVID-19 are also adding to the misinformation. For example, in Sudan many people believe that the virus will not spread in hot conditions and therefore have not been following any social distancing or protective measures (Okereke et al, 2021). At the peak of the pandemic, there was also widespread circulation of a belief that the genes of people in Africa naturally increase immunity to the disease (Reuters, 2020).

Political instability

The prevalence of humanitarian conflicts is highly correlated with political instability. The International Committee of the Red Cross (ICRC) estimates that more than 50 million people live in territories fully controlled by armed nonstate authorities (Drexler, 2021). In many of these places, there is a high level of mistrust of government authorities, including health officials in charge of vaccination programs. Religious and community leaders often hold a lot of sway in these

areas, and over the course of the pandemic there have been instances where religious leaders deny scientific facts, and many people choose to believe them over government health officials (Okereke et al, 2021).

Vaccine theft and corruption

The challenge of vaccine theft and corruption presents itself as another factor hindering the execution of efficient COVID-19 vaccine programs. Corruption can take place in the manufacturing, allocation, and distribution of vaccines, and has been in existence since before the time of COVID-19 (UNODC, 2021). Bribery, nepotism, favouritism, and lack of proper due diligence mean that the already limited supply of vaccines is further reduced. This is a vicious cycle, as corrupt practices can reduce countries’ chances of getting crucial health funding, as many funders want to avoid allocating money if they are suspicious or unsure of positive outcomes.

Theft of aid supplies and relief items has long been a common problem associated with the administration of humanitarian programs (Anderson and Wallace, 1999). Items can be stolen by militant groups for financing their own efforts, or by civilians in need of goods. This has also happened in the specific context of COVID-19 vaccines. In the earlier days of vaccine production, theft from the supply chain was a looming threat (UNODC, 2021).

Even where vaccine supply has been developed, slow and inefficient distribution has been a contributing factor to low vaccination rates in Africa. The continent was five months behind much of the world in commencing its immunisation program, with the program only starting in late-March 2021 (Sen-Crowe et al, 2021).

Policy recommendations

This section discusses some of the possible remedies that can inform current practice and work towards improving vaccination rates in areas that currently register as low coverage.

People affected by displacement face more hindrances than normal in getting access to COVID-19 vaccinations. These include being forced to move from the place where they got their first dose before they could get their second dose, or incompatible vaccination records. This paper recommends creating a dedicated quota of vaccines for refugees and forced migrants and developing paper vaccination records in an international format that they can take with them. The benefits from this would be twofold: it would be easy to access displaced people’s previous vaccination records for host countries, while also helping migrants avoid the language barrier.

Research is being conducted to see if getting multiple doses of different COVID-19 vaccines has any impact on the immunity from the virus or any negative health effects. Once sufficient research allows governments to act on this more readily, it will become easier for displaced people and refugees to complete their vaccination regimen after they move to a new place, easing the process of starting afresh.

This localisation agenda needs to be given a big push in the global COVID-19 vaccine campaign, especially around distribution, allocation, and pricing decisions

Humanitarian financing also needs to occur in a more coordinated manner. Efforts have been going on in recent years to improve the localisation of humanitarian aid and the involvement of crisis-affected people in aid and development programs. This localisation agenda also needs to be given a big push in the global COVID-19 vaccine campaign, especially around distribution, allocation, and pricing decisions. The UNHCR is working to include displaced people and refugees into national vaccine allocation and distribution plans (UNHCR, 2022c), and to protect the rights of displaced people to seek asylum even amid lockdowns and border closures.

In order to counter misinformation around COVID-19 and to aid in debunking myths connected to the pandemic, it is important to raise awareness in the local languages of every area. World Health Organisation (WHO) information sheets should be trimmed down into easy-to-understand one-pagers that can be put up at health clinics, schools, public transport hubs, maternity centres, and aged-care facilities, where they can reach the maximum number of people with the correct message. WHO regional offices must work with governments and country-heads to initiate question and answer sessions, briefings, and town hall meetings where people can raise and discuss their doubts about the vaccines. As with many humanitarian programs, incorporating the importance of handwashing, face masks and social distancing into school curriculums can help in ensuring that the correct message on best practices to manage COVID-19 reach all households in case an outbreak occurs.

Overall, there is an urgent need to link COVID-19 public health programs with humanitarian initiatives, to lead holistic responses in countries afflicted with humanitarian crises. This paper recommends linking the two outcomes together with localised schemes to strengthen community bonds, enhance capacity building practices, and address the core issues of health and aid.

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