


Letter to the Editor

Disproportionate coronavirus disease 2019 (COVID-19) vaccine distribution—A great threat to low- and middle-income countries

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To the Editor—The coronavirus disease 2019 (COVID-19) pandemic caused by severe acute respiratory coronavirus virus 2 (SARS-CoV-2) has become a noteworthy predicament for the entire world. The World Health Organization (WHO) declared a global pandemic on March 11, 2020. Many drugs and pharmaceutical preparations are being used to improve or reduce the effects of the disease. In the era of this effort, many scientists and pharmaceutical companies are trying to develop effective vaccines to combat this deadly virus.¹ Several vaccine candidates have been brought to the market to contribute to global immunity against this disease, but a serious issue is hindering the fulfillment of this purpose. The unequal distribution of COVID-19 vaccine between high-income countries (HICs) and low- and middle-income countries (LMICs) is thwarting global efforts to mitigate the pandemic. Inequality in the distribution of vaccines has always existed, as demonstrated in the H1N1 influenza outbreak in 2009 when vaccine supplies were completely dominated by developed rich countries.^{2,3} Recent studies have shown that, with limited healthcare-related services, LMICs are more likely to have a higher infection and mortality rates than HICs. Richard Hatchett, head of the Coalition for Epidemic Preparedness Innovations (CEPI) said, “If COVID-19 vaccines are misallocated in the way they were in 2009, the pandemic will last longer, more people will die, and the disruption will be greater than it needs to be.”⁴

The ongoing COVID-19 pandemic has thrashed away at already weak national economies in LMICs. In this context, unbiased access to an effective COVID-19 vaccine is crucial, especially for frontline healthcare professionals.⁴ The Director-General of the WHO said, “Vaccine equity is the challenge of our time, and we are failing.” He stated that of the 832 million vaccine doses administered worldwide, 82% have been dispatched to rich countries, while only 0.2% have reached resource-poor nations. In resource-rich countries, 1 in 4 persons have been vaccinated, but this ratio drops to 1 in every 500 people in low-income countries (LICs). This melodramatic inequality in vaccine distribution has led to a frightening increase in new COVID-19 cases and deaths in LMICs. Vaccine nationalism can prolong the catastrophe, economic decline, and misery for the general public. The Council President

from Pakistan, Mr. Akram, stated in an interview, “Lives are more important than incentives.”⁶ At the start of this pandemic, countries adopted a nationalistic attitude, for example, they banned on the export of several medical supplies (ie, ventilators and protective masks) to retain them for themselves.⁷

The COVID-19 pandemic has further highlighted the gross inequalities that have always existed between HICs and LMICs. These inequalities not only cause humanitarian sufferings but also lead to a huge economic burden on LMICs. LMICs are struggling to vaccinate even frontline healthcare workers while rich nations are administering vaccines to even young and low-risk citizens.⁸ In a public talk, a representative of the European Union said, “No one is safe until everyone is safe.”⁶

Due to the lack of local vaccine manufacturing capacity on a mass scale, LICs rely on rich countries to get the vaccines. Moreover, several factors may pose a significant challenge to vaccine distribution in poor countries (ie, low levels of education and the poor socioeconomic status of the people), and these factors may affect the acceptance of the COVID-19 vaccine among the general public. In LICs situated in geographically less accessible regions of the world (eg, Nepal, Bhutan, and Afghanistan) equitable vaccine distribution is a very difficult task, which furthers disproportionate COVID-19 vaccination. More than 160 million people are at risk of not getting the COVID-19 vaccine in the remote areas of Syria, Yemen, Sudan, and Ethiopia. Furthermore, people living in the urban slums of LMICs have poor access to vaccination services. Also, countries like Brazil and Indonesia have signed deals to purchase millions of COVID-19 vaccine doses that are still in phase 3 trials, which contributes to the acute shortage of vaccines.⁴ The lack of suitable means of transporting and storing the COVID-19 vaccine at low temperatures also poses a significant challenge. Most LMICs lack advanced research laboratories, government funds, vaccine-manufacturing policies, planning, and programs. Thus, even if authorization for manufacturing COVID-19 vaccines is given to these countries, it will not solve vaccine distribution problems.⁵

In conclusion, wider availability of the COVID-19 vaccine in LMICs will play an important role in achieving global immunity against this deadly virus. This problem needs to be addressed globally and acted upon urgently. HICs and global health organizations like the United Nations Children’s Fund (UNICEF), the Global Alliance for Vaccines and Immunizations (GAVI), and the WHO should support LMICs in acquiring adequate access to

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the COVID-19 vaccine so vaccines are equally available for everyone.

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