Journal of Health and Social Sciences 2021; 6,1:19-24
The Italian Journal for Interdisciplinary Health and Social Development

VIEWPOINT IN
PUBLIC HEALTH AND COVID-19

COVID-19 vaccination and global health equity: A decisive challenge for governments and policymakers

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Abstract

The COVID-19 pandemic is affecting every country across the world. It is very unlikely to get back into track until the global vaccination starts to roll out. The production of vaccine is not just enough as there is a dire need of balanced scalability, affordability and to sum up, global health equity is needed. The COVID-19 vaccine initiative (COVAX) is an exemplary public-private partnership to alleviate the global health crisis. In this commentary, we discuss about the reasons why global health equity distribution of vaccines against COVID-19 is needed. It became quite apparent that to end the global crisis of COVID-19, the development of vaccines is not just enough and its equitable distribution and acceptance of vaccine by global population is needed. The trust towards the scientific community and governments is, therefore, decisive for the success of the mass vaccination campaigns against COVID-19 in developed as well as developing countries. Hence, an equitable allocation of COVID-19 vaccines across the world should follow principles of global health equity and social justice to minimize the exiting health and socio-economic inequalities between developed and developing countries.

KEY WORDS: COVID-19; ethics; global health equity; preventive measures; COVID-19 vaccine; vaccination.

INTRODUCTION

The novel coronavirus disease (COVID-19) caused by SARS-CoV-2, was first reported in Wuhan, China in late December 2019, and by 25 February 2021, 223 countries, areas or territories in the world have reported 112,209,815 confirmed cases and 2,490,776 deaths to World Health Organization (WHO) [1]. On 30 January 2020, WHO declared the COVID-19 outbreak as a public health emergency of international concern and on March 11, 2020, it declared COVID-19 as a global pandemic. Since then, WHO has advised all the countries to escalate their performances to control transmission of COVID-19 by adopting lockdown measures, masking use and social distancing. To date, no decisive therapy has been discovered. Good news is that vaccination could be decisive in the fight against COVID-19. Vaccines save millions of lives each year. There are now several vaccines against COVID-19 infection that are in use. The first mass vaccination programme started in early December 2020 and as of 15 February 2021, 175.3 million vaccine doses have been administered. At least 7 different vaccines (3 platforms) have been administered. WHO issued an Emergency Use Listing (EULs) for the Pfizer COVID-19 vaccine (BNT162b2) on 31 December 2020. On 15 February 2021, WHO issued EULs for two versions of the AstraZeneca/Oxford COVID-19 vaccine, manufactured by the Serum Institute of India and SKBio [2]. According to the WHO, vulnerable populations in all countries are the highest priority for vaccination [3]. However, the unequal responses of COVID-19 in various countries led to greater uncertainty when the vaccine started to roll out [5]. In this commentary, we discuss about the reasons why health equity distribution of vaccines against COVID-19 is needed.

DISCUSSION

More than 300 vaccine projects are ongoing with over 40 on clinical evaluation and 10 are on Phase III clinical trials, three of them have ended with positive results [7]. It became quite apparent that to end the global crisis of COVID-19, the development of vaccines is not just enough. But at the same time, it is equally

TAKE-HOME MESSAGE

The governments, policymakers, scientists, and academicians should come together with robust decisions on COVID-19 vaccine distribution to ensure global health equity, and to stimulate global health diplomacy and collective action to address the pandemic by leaving no one behind as envisioned in Sustainable Development Goals.

Competing interests - none declared.

Cite this article as: Dhimal ML, Ghimire A, Pokhrel B, Dhimal M. COVID-19 vaccination and global health equity: A decisive challenge for goverments and policymakers. J Health Soc Sci. 2021;6(1):19-24

DOI 10.19204/2021/cvdv11

Received: 20/02/2021 Accepted: 25/02/2021 Published Online: 28/02/2021

crucial to ensure that the vaccine is accessible to all the people. In April, 2020, WHO announced the creation of a global allocation mechanism, the COVID-19 Vaccine Global Access (COVAX) Facility, coordinated jointly with Coalition for Epidemic Preparedness Innovations (CEPI) and Gavi. COVAX is a pooled procurement initiative that, in addition to seeking to secure low prices, aimed to provide all countries with access to a diversified portfolio of vaccines during the acute phase of the pandemic in 2021. With global efforts taken in early June 2020, COVAX, one of the pillars of the Access to COVID-19 Tools (ACT) Accelerator, launched by WHO, came as the world's best hope to bring the pandemic to an end. Ghana became the first country outside India to receive COVID-19 vaccine doses shipped via the COVAX Facility, which is a historic step towards the challenging goal to ensure equitable distribution of COVID-19 vaccines globally [8]. Not all countries can procure enough COVID-19 vaccines on their own. COVAX has made a varied portfolio of vaccines appropriate for a range of locations and populations, and is on track to meet its goal of supplying at least 2 billion doses of vaccine to participating countries around the globe, including at least 1.3 billion donor-funded doses to the 92 lower-income facility participants supported by the Gavi COVAX AMC in 2021. Nepal received 1 million doses of Covishield vaccine (ChAdOx1 nCoV-19 vaccine, recombinant) on 21 January 2021 as donation from India through science diplomacy and vaccination started on January 27, 2021. Thus, as of 22 February 2021, 429,705 people got the first doses of the vaccine with achievement against the target 85.6%, population coverage 1.4% and none severe AEFI cases reported. The Government of Nepal procured additional 2 million doses of vaccine and one million doses of the vaccine have already arrived on February 21, 2021.

As COVAX is aimed to ensure fair allocation of vaccines covering all countries including developing nations, an equitable and easy access is needed to tackle this global health crisis. Now, the management of pandemic is more likely to depend on the decision of governments and policymakers that should to depend on the decision of governments that should make progress in vaccine development and distribution.

To reduce the COVID-19 incidence, vaccination programs aimed at large population with a single dose and second dose administration in 3-month period were suggested as effective strategy [9]. The distribution of COVID-19 vaccine, however, shows practical complications, and, therefore, the uncertainties to reach the 'herd immunity', which is the population or community immunity, are great, especially in low-middle-income countries. In the meanwhile, the difficult clinical management of patients affected by severe forms of COVID-19 infection, and the emerging of new variants of SARS-CoV-2 are challenging the mass vaccination programs of every country. Equity issues concerning categories of people who should be given a priority are also matter of concern. Elderly and 'frailty' people who are more susceptible to get severe forms of infections should be vaccinated first. Furthermore, healthcare professionals and other at-high risk category of workers (i.e. essential service employees) should be also vaccinated, with the aim to contain the diffusion of COVID-19 infection among the most 'vulnerable' people. For instance, Pfizer committed to supply up to 40 million doses of its COVID-19 vaccine this year to a WHO-backed effort to get affordable shots to poor and middle-income countries. However, in many developing countries, storage of this vaccine that should be stored at around -70 to -80 degrees, and its distribution to local territories can be complicated. Moreover, in developing countries that have weak healthcare systems, vaccinating elderly population may be challenging, as elderly and poor people should be also properly informed about costs-effectiveness of the vaccination and any adverse effects following vaccination should be monitored closely. Despite these practical issues, an equitable global distribution of vaccines is advisable, to end the pandemic. Therefore, wealthy countries should support the cost

of mass vaccination programs for developing countries as a global solidarity. To date, instead, most of the vaccinations covered only the territory of the United States of America and European countries. In developing countries, the role of media and politics is decisive, when it comes to vaccination coverage [10]. Educational campaigns can increase the awareness of people and address vaccine hesitancy and health literacy, which affects negative attitude to vaccines, intention to vaccinate and vaccine uptake [11]. Addressing misinformation through educational campaigns via mass media is therefore most important in developing countries and should be organized through national and local languages. However, low health literacy in large sections of the population can favour misinformation and conspiracy theories, which in turn increase vaccine hesitancy. The trust towards the scientific community and governments is, therefore, decisive for the success of the mass vaccination campaigns against COVID-19 in developed as well as developing countries [12]. Probably, COVID-19 will not be the last pandemic. The lesson that we should have learned is that preparedness and a coordinated and common approach can pave the way to a better and equitable future for all. Science diplomacy is a global agenda that helps to develop and strengthen the scientific community for equitable access to vaccine. In India, the 'neighbours first' strategy for vaccine distribution has been applauded by many countries [13]. No nationalism can be effective in the fight that every country must do against SARS-CoV-2. As declared by WHO, developing a vaccine against COVID-19 is now the most pressing challenge of our time - and 'nobody wins the race until everyone wins' [8]. With a fair distribution of vaccines across the world, therefore, it is possible to end the pandemic and avoid the onset of future SARS-CoV-2 epidemics in developing countries, that in turn could spread the virus in developed countries for a second time. Therefore, global coordinated efforts in response to COVID-19 are needed for a success distribution of vaccination to vulnerable populations with a notion of global 'solidarity' into practice and policy [14]. Financial barriers should not become a barrier to ensure a global and fair distribution of vaccines. An equitable allocation of COVID-19 vaccines across the world is needed to reduce severe morbidity and mortality within all the countries, because no country can be safe until every country is safe [15]. Probably, this COVID-19 pandemic will not be the last one on the earth. Hence, working for building a collaborative and global healthcare policy, in the wake of the 'Onehealth' project [16] is not only worthwhile, but also profitable. The interconnection between people, animals, plants, and their shared environment should also be considered, when it comes to analyze health differences between developed and developing countries. During the COVID-19 pandemic, these differences are also becoming more evident and worrying. Certainly, there is also an interconnection between the ongoing COVID-19 pandemic and climate change. This requires a coordinated and timely effort by all policymakers for a global action [17, 18] against this and new challenges. This pandemic, therefore, should prompt policymakers and governments to rebuilding world, where everyone benefits from health for all, by addressing global health inequalities [19]. This will be possible by only adopting new economic models, which shall be more sustainable. An equitable distribution of COVID-19 vaccines will be, therefore, an important test to understand if policymakers want to address in the best way the next challenges to be faced to fight the effects of the climate change [20]. The governments, policymakers, scientists, and academicians should act with robust decisions for a fair COVID-19 vaccine distribution to maintain global health equity, and to stimulate global health diplomacy and collective action in the face of this pandemic, by leaving no one behind as envisioned in Sustainable Development Goals.

CONCLUSION

COVID-19 vaccination should follow principles of global health equity and social justice to minimize the exiting health and socio-economic inequalities between developed

and developing countries. It is crucial that poor countries receive financial support and all the needed resources from high-income countries to succeed in the mass vaccination campaigns against COVID-19. Global communities will benefit from this.

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