Journal of Iranian Medical Council, Volume 3, Issue no. 4
http://dx.doi.org/10.18502/jimc.v3i4.5186

Editorial

The Equity in Access to Coronavirus Vaccination; An Ethical, Scientific and Economic Rationale

Ahmad Shamabadi and Shahin Akhondzadeh*

Psychiatric Research Center, Roozbeh Psychiatric Hospital, Tehran University of Medical Sciences, Tehran, Iran

More than a year after the onset of the coronavirus outbreak, the number of worldwide daily deaths reported from coronavirus disease 2019 (COVID-19) has remained significant (1). From the outset, efforts have been made to find effective preventive measures, legislation, appropriate treatments, and vaccines. These days, despite improving discipline and protocols, the effectiveness of some treatments, and preventive measures, the number of reported confirmed deaths per day has reached about 15,000 (1). While the virus has so far infected all countries and caused great harms to all societies, sparks of hope have emerged with the limited start of vaccination (2).

Vaccines trials results favoured the efficacy and safety of some of them, so several agencies and governments approved them for use in the emergency. In addition to these approvals, pre-purchases of the vaccines have been made - mostly varied, due to the uncertainty about efficacy and safety (3). Now vaccination has begun in some countries in a limited way (2). Most countries that have pre-purchased vaccines and started vaccination are high-income countries, and many people in low-income countries will have to wait until 2024, according to the Duke Global Health Innovation Center in Durham (4).

Despite promising results from phase III vaccines trials, there are some considerations. First, asymptomatic infected individuals have not been followed up in studies, so vaccines' prevention from transmitting the infection from these individuals is not definitive. Second, the herd immunity threshold has not yet been determined. Third, the viability of memory immune cells after vaccination is unknown. Fourth, in trials, the result of close maskless contact with an infected person was not investigated. Fifth, vaccines do not cause immediate immunity, and it takes some time for immunity to develop. Sixth, there may be problems in transmitting vaccines and injecting them to the whole populations, while in trials, factors such as suitable facilities for storing vaccines, people trained to inject vaccines are observed. Seventh, it may not be possible to inject certain vaccines into allergic individuals, immunocompromised individuals, and pregnant women. Eighth, the efficacy of vaccines in people with the underlying disease is unknown (5). In light of the above, scientifically, overcoming coronavirus requires a global solution.

Ethically, giving priority to essential health care workers, people at

*** Corresponding author**

Shahin Akhondzadeh, Pharm.D., Ph.D.,FBPharmacolS

Psychiatric Research Center, Roozbeh Psychiatric Hospital, Tehran University of Medical Sciences, Tehran, Iran
Tel: +98 21 5541 2222
Fax: +98 21 5541 9113
Email: s.akhond@tums.ac.ir

Received: Sept 28 2020
Accepted: Sept 30 2020

Citation to this article:

Shamabadi A, Akhondzadeh Sh. The Equity in Access to Coronavirus Vaccination; An Ethical, Scientific, and Economic Rationale. *J Iran Med Counc*. 2020;3(4):175-6.

high risk for serious illness, and the elderly has been acceptable in times of vaccine shortages, but there is no moral justification for lack of equal access for people in high-income countries versus low-income people (6). Even without ethical considerations, if the above-mentioned scientific considerations of vaccines come true, the cost of creating a vaccinated versus unvaccinated dipole in the world is likely to be higher than the cost of mass vaccinating underdeveloped countries.

Hereby, universal access to effective vaccines seems essential to overcome the pandemic - as predicted from the beginning. Health organizations should support access to vaccines for low-income countries. To that end, a global initiative called the COVAX Facility has been set up to provide adequate doses to vaccinate 20% of the population in lower-income countries. However, not all countries are on the COVAX list, and direct deals by some of the signatories with pharmaceutical companies can make vaccine shortage for low-income vaccinations (6,7).

Conflict of Interest

The authors have no conflict of interests.

References

1. World Health Organization. COVID-19 Weekly epidemiological update - 29 December 2020.

2. Ritchie H, Ortiz-Ospina E, Beltekian D, Mathieu E, Hasell J, Macdonald B, et al. Coronavirus (COVID-19) Vaccinations. Our World in Data. https://ourworldindata.org/covid-vaccinations (accessed December 31, 2020).

3. Mullard A. How COVID vaccines are being divvied up around the world. Nature News 2020.

4. Will Low-Income Countries Be Left Behind When COVID-19 Vaccines Arrive? DUKE GLOBAL HEALTH INSTITUTE. 2020.

5. Bhatt J, Ahmed S. Why you have to wear a mask for a few months after you get your COVID-19 vaccine. December 25, 2020.

6. Hassoun N. How to Distribute a COVID-19 Vaccine Ethically. Scientific American. September 25, 2020.

7. Chesak J. Report: Rich Countries Are Buying Up COVID-19 Vaccines, Leaving Shortages. Verywell Health. December 29, 2020.