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Editorial

COVID-19, Equity and Fair Priority Vaccination

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World is battling pandemic of COVID-19 caused by virus SARS-COV-2 which has spread to more than 164 million people and claimed more than 3.4 million lives across the world till 19th May 2021 according to worldometer. India has reported over 24 million cases and above 2.6 lakh people have lost their lives.[1] It has wrecked global economies, disrupted healthcare systems and restricted lives of billions of people. End of this pandemic depends on development of herd immunity. Herd immunity is a concept used for vaccination, in which a population can be protected from a certain virus if a threshold of vaccination is reached. The same can be achieved through natural Covid infection. It is unethical to achieve herd immunity through exposing people to coronavirus and letting COVID-19 spread through populations of any age or health status and exposing them to unnecessary infections, suffering and death.[2] The administration of effective vaccine is considered one of the pivotal steps for alleviating the ailing public health system and accelerating economic recovery. The development of vaccine has occurred at an unprecedented pace and mass vaccination has begun in many countries within six months from the inception of SARS-COV-2. Although the vaccine has provided some respite from the wrath of pandemic but still making the vaccine accessible to those who need the most remains a challenge.

Even though no country remains untouched from the effect of this virus, but everyone is not equally impacted. This pandemic has taken the advantage of the disparity between have and have nots. As the virus do not affect people equally but those suffering from certain disease are more severely affected. The chances of survival are more among the people with better access to healthcare than those with poor accessibility. There are group of people who are more susceptible of getting infected due to their occupational demand of more contact with people. While few countries are witnessing thousands of deaths in a day and some have not seen any death related to this pandemic for weeks.

The world was never equally prepared to handle catastrophe of this magnitude. It can be seen in a fact that countries with high human development have an average of 55 hospital beds, over 30 physicians and 81 nurses per 10,000 people while least developed countries have 7 hospital beds, 2.5 physicians and 6 nurses per 10,000 population.[3] The healthcare inequality has also existed in the pre-COVID world. The

child born in Norway has a chances of living till age of 82.4 years while the child born in Lesotho has probability of surviving till 54.3 years of age.[4] The differences occur not only between but also within countries. Economics, social policies and politics shapes the circumstances in which people are born, grow up, live, work, and age as well as the systems put in place to deal with ill health impacts the health of person.[5]

On January 2021, while addressing the 148th session of Executive Board of World Health Organization, Dr Tedros Adhanom Ghebreyesus, Director-General of World Health Organization (WHO) expressed his concern, "The world is on the brink of a catastrophic moral failure- and the price of this failure will be paid with lives and livelihoods in the world's poorest countries."[6] The moral failure mentioned is about vaccine inequity. As of 11 May 2021, 1.26 billion doses have been administered globally and 637 million people have received at least one dose.[1] However 58.87% of total population of Israel is fully vaccinated compared to only 2.88% of Indians.[7] This unequal access to vaccine is not new phenomenon. During the 2009 influenza A (H1N1) pandemic, affluent nations bought essentially most of the vaccine supplies.[8] Demand for low and middle income countries were not addressed even after an appeal from WHO for donations.[9] The high risk individuals are still waiting for vaccine when healthy young population is getting vaccinated in some other countries.

This inequity in healthcare is unfair and avoidable. Equity in health can be understood as "absence of systematic disparities in health (or in the major social determinants of health) between groups with different levels of underlying social advantage/ disadvantage-that is, wealth, power, or prestige."[10] Equity in health thus equate to equal prospect of living a healthy life, for different population groups. The terms equality and equity are often confused, while equality assumes everyone benefit from same support and so suggest equal treatment but equity is based on concept of need, everyone receive what they need. "Health for all" program of WHO which is based on 1978 Alma Ata Declaration is one of the effort to decrease the gap between haves and have nots. This program introduced the concept of equitable distribution of resources.[11]

According to study conducted by Northeastern University, if first 2 billion doses of vaccine were equitably distributed based on countries' population, than it would cause two times less death as compared to vaccines being distributed first to 50 high income countries.[12] Covid-19 Vaccine Global Access (COVAX) Facility lead by WHO, Coalition for Epidemic Preparedness Innovations (CEPI) and Global Alliance for Vaccines and Immunisation (Gavi) was created to address the inequity in vaccine distribution. It aims to procure and distribute vaccines to its member countries, thus improving access to vaccine in low income countries. 190 countries signed up with COVAX facility and it has secured over 2 billion doses, has shipped more than 40 million doses to 119 participating countries and 5% of the available doses will be allocated to Humanitarian buffer which will cover high risk population who could otherwise be left out.[13]

India is capable of producing large doses of Covid vaccines and can satisfied demand. However, there were some administrative gaps in the process of production. The demand is far surpassing the capacity of production of vaccine, so question is how to allocate the vaccines to maximize the benefit. To tackle this problem, WHO has planned population proportional allocation, in initial phase of COVAX countries will receive doses equal to 3% of their population with priority to health personnel, then 20% for high risk population.[14] But distributing the vaccine in proportion to population size seems unfair because it does not consider the patient load in the countries. It has its benefit of getting better political acceptance for the distribution of vaccines.

A Fair Priority Model is better personification of ethical values of fair distribution. It proposes allocation in three phases, first it aims at reducing premature deaths, then it address the issue of health harms and economic deprivations and finally at reducing community transmission.[15]

This model can be used by Indian Government, with vaccine procurement at central level and allocation to states based on this model. Phase 1 is based on reduction of standard expected years of life lost (SEYLL) averted per dose thus the priority is given to worst off according to premature deaths. Phase 2 will give priority to worst off in terms of high transmission rates and thereby ending the pandemic and bringing the country to pre-pandemic situation. Prioritizing this phase is important for decreasing the infection to spread in vulnerable and poor. Then the phase 3 will give priority to worst off according to poverty so that states will be prioritized such that it will prevent more loss of Gross Domestic Product (GDP) of state and will cause reduction in poverty gap, thereby preventing harm indirectly due to socioeconomic factors.

This model can be advocated for country like India with high population and limited resource setting. In addition to this states also differ significantly in terms of geography, socio-economic status, politics and health status, thus warranting the need of better model than population proportional model as used by WHO. Considering the population of country and pace of vaccination (only 2.83% population vaccinated in almost 4 months of vaccination drive)[7] till the country reaches the level of vaccination where the pandemic can be said under control, thousands of lives will be lost and economy of country will continue to suffer. Thus Fair Priority model seems to be the best fit that can

reduce the burden of pandemic to maximum in terms of lives and economy till the country can reach the level of vaccination to end the pandemic.

References

1. WHO Coronavirus (COVID-19) Dashboard [Internet] Available from: https://covid19.who.int/ [Accessed on 18 May 2021].
2. Jiloha RC, Kishore J. Covid-19: Epidemiological and mental health challenges. New Delhi: Century Publications 2020.
3. United Nations Development Programme. COVID-19 and human development: Assessing the crisis, envisioning the recovery. UN; 2020.
4. United Nations, editor. Human development report 2020: The next frontier: Human development and the anthropocene. United Nations; 2021.
5. WHO Commission on Social Determinants of Health, World Health Organization. Closing the gap in a generation: health equity through action on the social determinants of health: Commission on Social Determinants of Health final report. World Health Organization; 2008.
6. WHO Director-General's opening remarks at 148th session of the Executive Board [Internet]. Available from: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-148th-session-of-the-executive-board [Accessed on 18 May,2021].
7. Coronavirus (COVID-19) Vaccinations [Internet]. Ourworldindata.org. Available from: https://ourworldindata.org/covid-vaccinations [Accessed on 18 May,2021].
8. Whalen J. Rich nations lock in flu vaccine as poor ones fret. Wall Street Journal. Available from: https://www.wsj.com/articles/SB124243015022925551 Published May 16, 2009 [Accessed 18 May,2021]
9. Fidler DP. Negotiating Equitable Access to Influenza Vaccines: Global Health Diplomacy and the Controversies Surrounding Avian Influenza H5N1 and Pandemic Influenza H1N1. PLoS Medicine.2010 May;7(5).
10. Braveman P, Gruskin S. Defining equity in health. Journal of Epidemiology & Community Health.2003 Apr1;57(4):254-8.
11. World Health Organization. Primary health care: report of the International Conference on primary health care, Alma-Ata, USSR, 6-12 September 1978. World Health Organization; 1978.
12. Chinazzi M, Davis JT, Dean NE, Mu K, Piontti AP, Xiong X et al. Estimating the effect of cooperative versus uncooperative strategies of COVID-19 vaccine allocation: a modeling study. Boston: Northeastern University; 2020.
13. ACT now, ACT together 2020-2021 Impact Report [Internet]. Available from: https://www.who.int/publications/m/item/act-now-act-together-2020-2021-impact-report [Accessed on 18 May 2021].
14. World Health Organization, A Global Framework to Ensure Equitable and Fair Allocation of COVID-19 Products and Potential implications for COVID-19 Vaccines, 18 June 2020; Available from: https://bit.ly/32rhHPb.
15. Emanuel EJ, Persad G, Kern A, et al. An ethical framework for global vaccine allocation. Science. 2020;369(6509):1309-1312.