

“Covishield and Covaxin” – India’s contribution to global COVID-19 pandemic

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ABSTRACT

The coronavirus disease 2019 (COVID-19) pandemic continues to bring in its wake not only morbidity and mortality but also an unprecedented challenge to public health, food systems, human dignity, and work across the world. The availability and possible delivery of a safe and effective vaccine to populations across the world are not only being seen as a hope to surmount these challenges but also as a show of human resilience in the face of adversity. Nations need to galvanize their resources and make the availability of vaccines universal, without which the real benefits of its development cannot be realized. Despite its large domestic needs, our country is being looked upon with both hope and expectation to deliver at this crucial juncture in the evolution of human civilization, and India is more than willing to do its part.

Keywords: Covishield, Covaxin, India’s, Contribution, Covid-19

सर्वे भवन्तु सुखनिः सर्वे सन्तु नरिमयाः।
सर्वे भद्राणि पश्यन्तु मा कश्चिद्दुःखभाग् भवेत्॥

May all be happy; May all be free from infirmities; May all see good; May none partake suffering.

One of the most beautiful verses, illustrating the whole concept of “well-being of all” and commonly quoted in the context of spirituality, dharma, universality, and well-being has been the guiding principle of our health care civilizational history. Fundamental to it is the “health and wellbeing of all” irrespective of their nationality, group, or race. The COVID-19 pandemic necessitates the integration of this verse into the national health care mitigation plans of each nation of this world to reduce the impact on the most disadvantaged and needy. The path has been shown, it is time to tread on it as the

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entire world, despite falling numbers, continues to be amid the COVID-19 pandemic.

As nations put together various forms of response; from lockdowns and freezing of transmission to tracking the pandemic through surveillance or advising on interventions, the development and delivery of safe and effective vaccines was one intervention most widely awaited.

Background

Ever since vaccines have been in operation, millions of lives continue to be saved each year. By training and preparing the immune system, the vaccines help the human body to recognize and fight off the viruses and bacteria against which these vaccines are developed.^[1] On a larger canvas though, vaccines go beyond individualization of their benefits. By providing vaccination to a larger group of beneficiaries we create a cohort of protected individuals capable of providing protection to others as part of the herd immunity. The existence of this dichotomy makes vaccination not only challenging but also worthy of achievement.

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World response

The Government of India launched what is largely being realized as the largest vaccination drive across the country, riding largely on two vaccines developed by Indian vaccine manufacturers.^[2] Similar initiatives have been taken by governments across the world with the European Union, the USA, and Israel vaccinating its health care staff with vaccines developed by other pharmaceutical houses. Maybe in the coming times more will be added to this basket as more than 50 COVID-19 vaccine candidates are in different phases of trials across the world. The fundamental principle driving all these trials is the development and supply of a safe and effective vaccine. On its part, once such vaccine or vaccines are in the basket, COVAX the vaccines pillar of the access to COVID-19 led by the World Health Organization (WHO), Global Alliance for Vaccines and Immunization (GAVI), officially Gavi, the Vaccine Alliance (previously the GAVI Alliance, and before that the Global Alliance for Vaccines and Immunization) and Coalition for Epidemic Preparedness and Innovations (CEPI) is expected to facilitate the equitable access and distribution of these vaccines to protect people in all countries.^[3]

India responds

The significant ease with which India has been able to reach its captive cohort of health care workers may be replicable in other similar cohorts like the frontline police personnel's, but the real test for us will make the vaccines available to those who need them to run their lives without fear of catching serious infection, the elderly, or the people with the comorbid conditions. The numbers to reach are huge, so is the diversity of geography, but the resilience shown by an average Indian to face the challenges in the aftermath of the COVID-19 pandemic generates hope that the challenge will be surmounted if not with ease but with a great degree of resolve in the effort.

Where do we stand

The vaccine per se will also shape the future of immunization practices in the next decade or so as the governments across the world will need to mount programs specifically targeting COVID-19 or aligning COVID-19 vaccination with existing programs. This will also be guided by the fact as to whether this vaccine will enter the world market as the vaccine that brought the human life back to the old or will become a vaccine belonging to that small stable of influenza vaccines less commonly used in large parts of the world; only time will tell. But the hope, it has generated in the pale of gloom involving the pandemic increases the belief of common people in the capabilities of its scientific community to a significant amount. It is been no lesser a triumph that resources were gathered, where paucity loomed large in the wake of lockdowns, to effectively challenge and win over the pandemic.

This also is significant from India's point of view. Our development of a vaccine has not lagged behind any other country, largely maybe because of our robust infrastructures to

develop and deliver vaccines. But the real challenge in front of all of us now is to make these vaccines available to all those in need of them across the world.

Why the whole world looks at India

Limiting the vaccines to a few; groups, populations, or nations will defeat the very purpose for which the vaccine has been developed. The pandemic has been global so should be the vaccine. As the "Pharmacy capital" of the world, India needs to stand up to the challenge in delivering safe and cost-effective vaccines across the world, and on its part, India is living up to its reputation.^[4] Given the way, the different vaccines are placed, with respect to the use of vaccine platforms, the cold chain maintenance, and eventual delivery to each corner of the world, vaccines manufactured and to be delivered by India are the best options to tackle the vaccine requirement and target the COVID-19 pandemic. What also makes the Indian Vaccines more important on the world's vaccine canvas is the fact that nations including Britain, European Union members, the United States, Switzerland, and Israel have been at the front of the queue for vaccine deliveries from companies including Pfizer and partner BioNTech, Moderna, and AstraZeneca. As per available reports, the European Union (EU) has entered into a deal with Pfizer and BioNTech for 300 million additional doses of their COVID-19 vaccine.^[5] This deal will help the EU secure nearly half of the firms' global output for 2021 making their vaccine almost unavailable to a large number of poor and developing countries.

The scramble for vaccine and its impact

The scramble for the vaccine is making people worried. On its part, the WHO under its COVAX facility had raised \$6 billion of the \$7 billion it sought in 2021 to help finance deliveries to 92 developing nations with limited or no means to buy vaccines on their own. But the ground reality remains that the vaccines have to be supplied by someone to deliver to these countries.

As per an analysis of advance market commitments for experimental COVID-19 vaccine by the Duke Global Health Innovation Center of the USA, international initiatives such as COVAX and other alliances are critical to ensuring equitable allocation of vaccines for low- and middle-income countries and if we go by the current models, not enough vaccines will be available to cover the world's population until 2024.

India's role

The fact that India manufactures more than 60% of all vaccines sold across the globe is going to come in handy as also the fact that its \$40 billion pharmaceutical sector is not yet involved.^[6] Indian will continue to play a pivotal role even in the production of the expensive Pfizer Inc and Moderna shots and thereby help immunize much of the world. In the pipeline is the development of some more affordable vaccines by the Indian companies with the aim to fight COVID-19. At the moment the Indian Serum Institute's Covishield is being looked up to as called the "vaccine for the world."

In the words of Australia’s ambassador to India, Barry O’Farrell, “There are many vaccines being produced in countries around the world but there’s only one nation that has the manufacturing capacity to produce sufficient quantities to satisfy the demands of citizens in every country, and that’s India,” after touring vaccine manufacturing sites in India with many other diplomats.



This tweet by the Brazilian President, Jair Bolsonaro, while invoking Ramayana, on Friday thanking the Indian Prime Minister, Narendra Modi, underpins what the world expects from us and how the world looks at us in delivering the coronavirus vaccines.^[7] India is expected to be exporting safe and cost-effective coronavirus vaccines not only to its neighbors but also to countries such as Brazil and South Africa with many low- and middle-income countries awaiting the same. In addition, India is committed to training health

care practitioners across economies in the safe and effective delivery of vaccines.

Conclusion

The entire world is looking to India, which despite its huge domestic needs and resource shortage due to a long lockdown (like most other nations) is not just looking inward but is going out of the way to fulfill its commitments to the nations in need of relief in these trying times.

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