

Covid-19 Vaccine Booster Dose and The Indian Scenario: When We Will Have a Fully Immunized Population?

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Sir,

Covid-19 vaccine and its doses for complete protection are still questionable for everyone.¹ To sustain the protective level of neutralizing antibodies and subsequently herd immunity in the community, receiving a booster dose of the COVID-19 vaccine is necessary, and the success of booster dose programs largely depends on public acceptance. Despite the impressive initiatives taken by our government, we, the people of India, are hesitant, and as a result, the coverage of Covid-19 booster dose is low in our nation.

On January 16, 2021, the COVID-19 vaccine (Covishield) was introduced in India for healthcare professionals, frontline workers, and older people (60 years or above), and then gradually for other age groups in a phased manner.² Initially, two doses of vaccine were recommended with a specific time interval. A year passed, and Covid-19 cases started increasing due to the arrival of the third wave and the

government introduced a booster dose or precautionary dose (January 2022) for healthcare professionals, frontline workers, and the above 60 aged population. Later it was available for the common people too.³ Prior to the development of Covid vaccines we humans were obsessed about it. We followed it after its initial introduction because it was the sole tool available to combat Covid-19 infections.⁴ But when the booster dose was introduced and we started dreaming of a fully immunized nation, the entire scenario changed⁵ and we showed our attitude of "Delay in acceptance or refusal of vaccines despite availability of vaccine services", so-called "Vaccine Hesitancy".¹

As per government data updated on 1st March 2023, almost 70% of the total nation's population (above 952 million Indian citizens) were vaccinated with two doses of the COVID-19 vaccine, while 16% received the booster dose. And more interestingly, only 24% of the population who already received two

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doses of vaccine approached for a booster dose.⁶ It's a clear indication, that our desire for the Covid-19 vaccine has declined dramatically. It may be due to lack of awareness regarding the booster dose, mistrust over the effectiveness, worries regarding side effects, and concern about the safety of the vaccine. Another reason could be the overconfidence in our own immunity. But the game is not over, there are several studies that have documented SARS-CoV-2 vaccine breakthrough infection.⁷

The vaccination drive will continue and booster dose coverage statistics may change in the future. However, it is a matter of concern that less than only one-fourth population of our nation was covered after one year of the booster dose policy being implemented. During the second and third waves, public places, organizations, and transportation were restricted for unvaccinated people.⁸ As a result, an urgency was noticed for the first two doses of Covid-19 vaccine. But gradually restriction was removed and we lost our interest in booster dose and also learned to live with the virus.

To sum up, we would like to suggest that, by spreading the truth about the protective benefits of booster dose immunization, enforcing laws, and making vaccination simple and affordable, the vaccine-averse population may be persuaded to accept vaccinations like Covid-19 booster dose. Very recently (June 20, 2023), India developed "GEMCOVAC-OM", an Omicron-specific thermostable mRNA-based booster vaccine, which may be a new "ray of hope" in booster dose vaccination drive.⁹ There is also a need for more aggressive campaigns and promotions regarding the booster dose benefits to achieve a fully vaccinated population.

REFERENCES

1. Fisher KA, Nguyen N, Fouayzi H, Crawford S, Singh S, Dong M, et al. From COVID-19 Vaccine Hesitancy to Vaccine Acceptance: Results of a Longitudinal Survey. *Public Health Reports*. 2023;0(0). doi:10.1177/00333549231176006.
2. Masthi Nr R, Brahmajosyula A, Khamar A, Acharya N, Bilichod LP, Kondath D. Coverage of Coronavirus Disease-2019 (COVID-19) Booster Dose (Precautionary) in the Adult Population: An Online Survey. *Cureus*. 2022 Jul 16;14(7): e 26912. doi: 10.7759/cureus.26912.
3. Precaution Dose to be now available to 18+ population group from 10th April, 2022, at Private Vaccination Centres Posted On: 08 APR 2022 3:01PM by Ministry of Health and Family Welfare <https://pib.gov.in/PressReleasePage.aspx?PRID=1814804> Last accessed on 1st March 2023.
4. Bhaumik S, MUKHIDA S, Das N, Khan S, Patil R, Kannuri S. Can Vaccines Alone Bring an End to This Pandemic? *Natl J Community Med*. 2023 Mar. 31 [cited 2023Jun.1];14(03):208-9. DOI: 10.55489/njcm.140320232647.
5. Mukhida S, Kannuri S, Das NK, Khan S, Patil R. Is a vaccine one of the factors that will contribute to the end of the Pandemic? *Iranian Journal of Medical Microbiology*. 2023.06.08 (ahead of Print).
6. Vaccine State Data published on Ministry of the Health and Family Welfare data checked on 1st March 2023. Available on <https://www.mohfw.gov.in/> last accessed on 1st March 2023.
7. Gupta A, Bhojar R, Mirza S, Jolly B, Senthivel V, Shamnath A, et al. SARS-CoV-2 vaccine breakthrough infection following a previous infection in a healthcare worker. *J Infect*. 2022; 84(3):418-467.
8. Mukhida S, Vyawahare C, Verma P, Khan S, Das N. Are the Current COVID-19 Cases Post-Phase of 3rd Wave or Pre-phase of 4th Wave in India? *Iran J Med Microbiol* 2023; 17 (2):270-272. URL: <http://ijmm.ir/article-1-1826-en.html>.
9. Omicron-specific mRNA-based Booster vaccine developed using the indigenous platform technology. <https://pib.gov.in/PressReleasePage.aspx?PRID=1933586>.