

# Is a Vaccine One of the Factors that Will Contribute to the End of the Pandemic?

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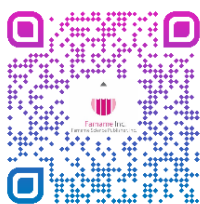
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## Dear Editor

For the last 2-3 years, we faced the covid-19 pandemic, and the world has been under its influence. The pandemic spread worldwide so rapidly that people saw the only end of humans. Vaccines came as a ray of hope in the pandemic when hordes of people died due to lack of a specific treatment. However, after vaccine development, what advantages do we have? (1) We wish to contribute to this moment of vaccines.

Many pandemics have occurred, primarily viral, like smallpox and H1N1 influenza. Our forefathers fought the struggle and triumphed against the bugs. Viruses caused the majority of the pandemics, specifically respiratory infection-causing viruses. They were delivered by contact, droplet, airborne, or environmental routes. The present century differs in a way like the ease of transport so that an agent can easily cross borders and in no time can become a pandemic. Vaccines have gained prominence in the last few decades. Vaccines did not give complete protection from the disease but decreased the number of cases and severity/mortality of infections during pandemics in the last century. With the ease of production, development of new types, and research available, it is now a potent weapon.

The covid-19 pandemic began in China in November 2019 and spread globally by March 2020 (2). Vaccine research, trials, and production in India were ramped up gradually. The Covishield vaccine trial was

completed by December 2020 and the mass vaccination program started in January 2021. In the meantime, a new variant of the virus began showing up. There were apprehensions about the efficacy of the vaccines. Gradually there were further waves along with breakthrough infections (3).

The virus affected almost all countries. What was contrasting to see was that not all people suffered alike. The mortality was far more in Western and European countries (despite better health infrastructure) than in Asia or Africa. This shows how a virus can behave differently based on race. Also, other factors might be in play. The hygiene hypothesis might be one. These relatively lesser developed nations stay close to nature and hence might be exposed to lar viral agents earlier and, therefore, might be naturally immune (4). Also, despite the inequitable distribution of vaccines amongst various nations, the less privileged countries suffered less miraculously.

Valid reasons for the epidemic's decline are still well established. Is it due to vaccines? Or is it just that the virus lethality has waned naturally, so it is now living in perfect sync with a human? Despite vaccines, many people suffered from breakthrough infections (3) Chief executive officer of a significant covid vaccine manufacturing firm. Even after a complete vaccine, He was infected with Covid-19. How can we as ordinary people, trust vaccination to halt the epidemic if they

are not immune to infection? (5) It won't be easy to say, that the vaccines saved their lives. This does prove one thing; vaccines didn't prevent the infections and maybe have reduced the damage caused. The time will say what decreased transpired. So, to say that vaccines actually decreased the pandemic will be wrong to say when a lot of known and unknown factors played a huge role in the disease process.

Another example is the recent surge of infections in China. When the rest of the world was recovering, China was a cause of worry. Despite good vaccination coverage with an indigenous and efficacious vaccine, it caused havoc in the last 6 months. It may be related to their zero covid policy of theirs. When played together, immunity, genetics, and viruses can work in mysterious ways. It's not always bad to be infected; what better vaccine than natural infection. However, the path is to be treated very carefully (6, 7).

As a result, we conclude that vaccination alone is inadequate and that contact precautions and herd immunity are also essential. It is preferable to rely on your immune system rather than a laboratory-created barrier with dubious performance. We are not opposing vaccines nor opposed to the mindset that believes vaccines will halt the Covid-19 epidemic.

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Always remember that the virus will never vanish; it is still active someplace. When they have the opportunity to mutate, they will create new varieties and return.

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## Ethical Approval

Not Applicable.

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Not applicable.

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## Conflict of interest

None of the authors have any conflict of interest.

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