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## Editorial

# Waning vaccine immunity- What is it headed for?

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The Covid virus has changed over due course of time and immunity from previous COVID-19 vaccination has waned, putting the health of even the double-vaccinated people at great risk. The main reasons for this are waning immune protection due to low booster uptake, coexisting morbidities, and changes in immunity among the unvaccinated people. The more people who maintain their COVID-19 vaccination records, according to FDA Commissioner Robert M. Califf, "will accrue advantages for individuals, families, and public health by aiding in the avoidance of major infections, hospital stays, and fatalities."<sup>1</sup> The advice was given as a Washington Post investigation published in November 2022 revealed that the percentage of mortality among those who received vaccinations has been rising progressively as new variations have emerged.<sup>2</sup>

Due to declining Covid vaccine efficiency in the absence of booster doses and "increasingly mutated but more contagious strains of the virus being transferred to old and immunocompromised people" among those who have received at least one vaccination dose, the number of vaccine-related deaths is rising. Thus, "We can no longer say this is a pandemic of the unvaccinated," as narrated by Washington Post in a recent report.<sup>2</sup> It's a true but misleading statement, according to Dr David Weber, an infectious disease expert. He gave the analogy of seat belts saving lives despite the casualties that happen even with

wearing seatbelts in automobiles. "The correct statement about seat belts is how many lives they save, and the same is true about vaccines too". Anthony Fauci, the outgoing chief medical adviser for the White House, has emphasised the effectiveness and safety of the Covid vaccinations in averting serious illnesses and fatalities, urging people to get vaccinated and boosted as soon as possible.<sup>3</sup> Being unvaccinated remains a significant risk factor for dying from COVID-19. However, efficacy wears off over time, and a recent study from the Centers for Disease Control and Prevention emphasises the importance of getting regular booster shots to reduce the risk of death from the coronavirus, particularly in the elderly.<sup>4</sup>

According to Scientific American,<sup>5</sup> the pandemic has increased the number of Covid fatalities among older people, who have traditionally been susceptible even to minor illness. In comparison to nine months earlier, the World Health Organization (WHO) announced a nearly 90% decrease in recent COVID-19 deaths worldwide, but it nevertheless encouraged caution against the pandemic as new varieties continue to emerge.<sup>6</sup> Even those who have received two vaccinations face serious health risks since the Covid virus has mutated and immunity from prior COVID-19 vaccine has decreased. Changes in immunity among the unvaccinated are one of many reasons, coupled with diminishing immunological protection and inadequate booster uptake.

The most severe effects of illness brought on by the currently circulating omicron form and its variants like

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BF.7, such as hospitalisation and death, can still be prevented by vaccinations. The BF.7, which is currently wreaking havoc in China, has demonstrated better immune escape than its forefathers. However, experts believe that mRNA vaccines continue to provide protection against serious illness and death. Increased long-term clinical protection against SARS-CoV-2 infection, especially in people who have recovered from a COVID-19 infection, is suggested by the finding that COVID-19 mRNA vaccine boosters increase antibody persistence.<sup>7</sup> A booster dose is advised for all age groups as the variant discovered in India has raised concerns about a future wave.

"Only time will tell what happens in the future, but we should be vigilant, follow COVID-appropriate behaviour, limit travel, and get our Booster Shot".

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