

Messenger RNA Covid vaccines 66% effective against Delta: US study

24 August 2021



The Centers for Disease Control and Prevention (CDC) has been examining the real-world performance of the two vaccines since they were first authorized among health care personnel, first responders and other frontline workers.

The effectiveness against infection of the Pfizer and Moderna COVID-19 vaccines dropped from 91 percent before the Delta variant became dominant to 66 percent afterwards, according to a large study of US health workers published Tuesday.

The Centers for Disease Control and Prevention (CDC) has been examining the real-world performance of the two vaccines since they were first authorized among healthcare personnel, first responders and other frontline workers.

Thousands of workers across six states were tested weekly and upon onset of COVID-19 symptoms, allowing researchers to estimate efficacy against symptomatic and asymptomatic infection.

By looking at the rate of infections among vaccinated and unvaccinated people and the amount of time they were tracked, vaccine

effectiveness was estimated at 91 percent in the initial study period of December 14, 2020 to April 10, 2021.

But during weeks in the run-up to August 14, when the ultra-contagious Delta variant became dominant, effectiveness fell to 66 percent.

The report's authors said there were a number of caveats, including that the protection from vaccines could be waning over time anyway, and the 66 percent estimate was based on a relatively short study period with few infections.

"Although these interim findings suggest a moderate reduction in the effectiveness of COVID-19 vaccines in preventing infection, the sustained two thirds reduction in infection risk underscores the continued importance and benefits of COVID-19 vaccination," they said.

A number of studies have now concluded vaccine efficacy has dropped against Delta, even though the precise level of that drop differs between papers.

Protection against severe disease appears more stable, exceeding 90 percent, according to a recent CDC study of patients in New York.

Another CDC study of Los Angeles patients released Tuesday that was carried out from May 1 to July 25 showed unvaccinated people were 29.2 times more likely to be hospitalized with COVID-19 than the vaccinated—corresponding to efficacy of about 97 percent.

Delta became the dominant strain in the United States in early July.

According to a recent paper in the journal *Virological*, the amount of virus found in the first tests of patients with the Delta variant was 1,000 times higher than patients in the first wave of the

virus in 2020, greatly increasing its contagiousness.

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